



Application of Importance-Performance Analysis Model in Evaluation Service
Quality of Diving Tour Operators in Nha Trang (Viet Nam)

Mr. Vo Tran Hai Linh

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Business Administration in Tourism Management

Graduate School of Business

Assumption University

Academic Year 2014

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By Mr. Vo Tran Hai Linh
Thesis Advisor Adarsh Batra, Ph.D.
Academic Year 2014


The Graduate School/Faculty of Business, Assumption University, has approved this thesis as a partial fulfillment of the requirements for the Degree of Master of Business in Tourism Management

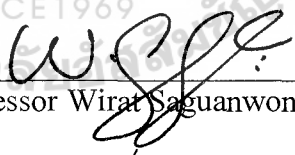
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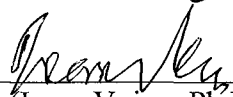
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Abstract

To improve the service quality, the study objectives were set to understand the divers' opinion on dimensions of service quality of diving experiences in Nha Trang, and their evaluation of the diving tour operators' performance, based on those attributes. Analysis employed The Importance/Performance Analysis paradigm based on five dimensions and 25 attributes collected from previous studies.

The data were obtained from 392 respondent divers who participated in diving activities of the ten chosen diving tour operators. A survey using self-administered questionnaires was used. With the help of Statistical Product and Service Solutions (SPSS), the raw data from the questionnaires were transformed to meaningful information by descriptive statistics and hypotheses testing.

The results indicated that Tangibles, Responsiveness and Reliability were in the Quadrant “Low Priority”, which means those dimensions have low levels of importance according to customers and diving tour operators' performance is relatively low. Furthermore, Assurance and Empathy dimensions had high importance levels and Performance evaluations were high as well, so they were located in the quadrant of “Keep Up the Good Work”. Hypotheses testing revealed significant difference in performance and assigned importance in Tangibles, Assurance, and Empathy dimensions, without significant difference in Responsiveness.

Through the findings of the research, some useful suggestions were generated for the diving tour operators to improve their service quality. Diving tour operators can understand more about customers diving requirements, so the service provided could be more accurate and give more satisfaction to divers who participate in diving activities in Nha Trang.

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CHAPTER 1

GENERALITIES OF THE STUDY

1.1 Introduction

1.1.1 Scuba Diving Definition

Scuba is an acronym which means: Self-contained underwater breathing apparatus (designed by Jacques Cousteau and Emile Gagnan in 1943). The very first usage of diving activities was to spear fish; whilst marine research came later (Davis & Tisdell, 1995; Ince & Bowen, 2010). Those activities are still popular nowadays, but in most marine protected areas, spearing fish is not allowed (Ojeda-Martínez et al., 2009). Lately, diving for watching nature and recreational experience has appeared and increased globally, become various types (reef diving, cave diving, wreck diving, or even shark diving), in many places (Great Barrier in Australia, Red Sea Egypt, Maldives, and Phuket in Thailand).

1.1.2 Diving Tourism

“Diving tourism involves individuals travelling from their usual place of residence, spending at least one night away, and actively participating in one or more diving activities, such as: scuba diving, snorkeling, snuba or the use of rebreathing apparatus” (Garrod & Gössling, 2008, p. 7).

Diving tourism comes under the designation of special interest tourism (Tabata, Weiler, & Hall, 1992). The report of the “2020 vision” World Tourism Organization (1998) grouped scuba diving in the category of adventure tourism, under the rural setting and in the subset of adventure tourism.

Tabata (1992) found that tourists who travel to tropical and sub – tropical destinations commonly chose scuba diving or snorkeling as recreational activities. Recently, diving was considered as the fastest growing sport. According to PADI (Professional Association of Diving Instructors), in 2012, there were almost one million new certified divers, this number made the total divers in the world reach more than 21 million people. PADI is not the only organization which certifies divers in the world, there are other organizations such as ADS (Association of Diving School), IAC (International Aquanaut Club), IADS (International Association of Diving Schools) that are certifying divers as well.

1.1.3 Reasons for Recreational Diving

Davis and Tisdell (1995), conducted qualitative research about recreational scuba-diving, and pointed out these reasons to explain why people go diving:

- A desire for a wilderness experience.
- A general interest in marine ecology.
- The fact that the sport is seen as different and perhaps projects a special (image).
- An interest in particular underwater features (geological formations, shipwrecks) or marine life (sharks, fish, corals).
- Pursuit of a hobby, such as underwater photography.
- Simply, to experience the activity (mainly through resort dives). Diving may also be regarded as an adventure with some risks.

1.1.4 Diving Tourism Impact

In the past, diving tourism was considered to have little impact on the environment. However, diving has been studied, which found that it brings very serious negative environmental impacts to the coral reefs and the local communities (Bennett, 2002). Multiple researches proved that diving can seriously damage the coral reefs and environmental sustainability by many aspects. The impact comes from diving boats with physical waste, anchor damage and careless diver behavior (Davis & Tisdell, 1995; Tratalos & Austin, 2001) or water systems damaging coral structures from building and construction, sedimentation created from divers boats (Hasler & Ott, 2008), and coral damage directly from divers (Barker & Roberts, 2004; Davis & Tisdell, 1995).

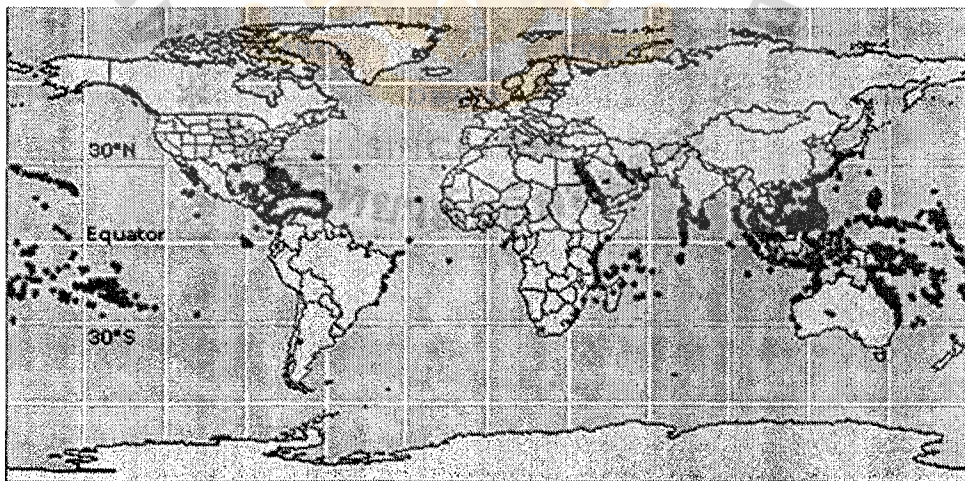
In contrast, the economic value from tourism must not be overlooked or particularly diving tourism. It brings to the communities and local economy, through foreign exchange, and is contributing to overall economic growth, income, and employment. Researchers suggested that tourism, and particularly diving tourism should be the way to improve the economies of developing and less-developing countries (Lindsey & Holmes, 2002). Richter (1989) stated that tourism is commonly perceived as one of the most promising ways for sustainable economic, political development. In reality, some places became a successful model of progress. A good example is Utila Island in Honduras, researched by Canty (2007), who determined that before tourism development, it was a poor Island. Nowadays, with approximately 85% of the economy being derived from diving industry, the Island economy received a boost, and more infrastructures: the island's local citizen's living standard have been significantly improved. Another example is Palau. It is one of smallest countries in the world, but it became very well-known as a diving paradise. Palau's economy

depended heavily on foreign aid, mostly from the United States of America (average 25% of GDP in the last decade). However, with the new project to improve the marine tourism, Palau's economy is on the way to gain self-sufficiency and going to achieve this goal in 2014 ("Republic of Palau 2012, Article IV Consulation," 2012).

1.1.5 Diving Places around the World

Today, diving destinations are built and developed all around the world. It seems to be impossible to determine the best diving sites in the world, because it depends very much on personal preferences. However, as an expert diving writer, Ecott (2006) mentioned some dive sites that have been well-known and commonly preferred by many experts, in the article entitled *"Top ten dive sites of the world"* published in the British E-newspaper "The Guardian". His list is widely agreed by many diving tourism researchers (Garrod & Gössling, 2008; Ince & Bowen, 2010; Maccarthy, O'Neill, & Williams, 2006; Musa, 2002).

Figure 1.1 Maps of Coral Reefs around the World



Source: Retrieved August 13th, 2014, from http://oceanservice.noaa.gov/education/kits/corals/media/coral05a_480.jpg.

1. Rocktail Bay, Kwazulu-Natal, South Africa

The MPA Maputaland is a cool site, but there are numerous of tropical fish species. Moreover, extremely big pelagics, humpback whales, and dolphins are found out here. Many divers also reported seeing tiger sharks and whale sharks at this site. From November to February, the leatherback turtle appeared along the sandy shores of Manzengwenya.

2. Rangiroa, Polynesia

The Tuamotu Archipelago is located about 250 miles from Tahiti. Divers have to travel by airplane or boat to the dive site from the nearest villages Avatoru and Aputa. After that, they have to continuously access the dive sites by boat, and that is the only way to travel around as well, so divers find themselves absolutely removed from the world. Inside the Archipelago, the Rangiroa atoll is the second largest in the world. This site provides a highly adventurous dive, divers have a chance to dive with grey sharks, hammerhead sharks, and mantas. However, the atoll is one of the most relaxed places in the entire world.

3. Sulawesi, Indonesia

Sulawesi offers one biological marine on Earth. There are plenty of seashores, many species of fish, nudibranchs, flat worms and healthy corals. The Bunaken National Marine Park is a world leader in sustainable tourism. A park fee is charged here, and it is considered a way to share the cost for the local communities. Dive operators are amazingly friendly; they celebrate communal dinners every night, talking about the day's diving, the next day's diving sites, and other activities.

4. The Maldives

With all the inclusive services, the Maldives have been the best all-round diving place in the Indian Ocean. They are famous for the gorgeous landscapes, natural diving sites, and the variety of fish, turtles, sharks and colorful coral reefs. The remarkable points are North Male atoll and South Ari atoll; those give divers an extremely exhilarated feeling.

5. Little Cayman, Cayman Island

This island is small, with only 200 permanent residents. The unique nature of this dive site is a sheer coral cliff drops off of 2,000 meters into a submarine trench, and the water is crystal clear. It especially provides for relaxed dives with easy conditions, and warm water.

6. Cocos and Malpelo, Columbia

These two isolated islands are visited only by divers and members of the Costa Rican and Colombian coast guard, because both islands are marine reserves. The reason for that isolation is to give protection for their endemic species, which can only be found there, so the only way to visit the islands is on a dedicated safari boat. However, if divers wish to see something imposing like a school of tuna or jacks, or the red-lip batfish, they would not be disappointed there.

7. The Bismarck Sea, Papua New Guinea

This site is considered the best shore diving in the world. With more than eight hundred species have been identified, this place became one of the highest sought after marine biodiversity in the world. Moreover, night diving is also available there, providing diver a totally different experience.

8. Sipadan Island, Malaysia

The inexperienced diver should not go there, because the current can be strong, and unexpected, and shark encounters were also reported. However, the highly experience divers find it out challenge, and enjoy very much seeing the green turtles, and the rare mandarin fish found there.

9. Surin and Similan Islands, Thailand

Amanda Sea is well-known for its richness of coral reef biodiversity. Moreover, the diving tourism industry in both islands is very developed. Many activities are provided there, such as: feeding fish for beginner divers, training courses for intermediate people, and professional diving cruises for the more experienced divers.

10. Bikini Atoll, Marshall Islands

This is a resting place for warships, so it is considered a shipwreck diving paradise. The Bikini atoll was famous first for its atomic test site and was made a World Heritage Site by UNESCO. Furthermore, because of radiation contamination, the Island was declared uninhabitable; it became an unofficial marine reserve. However, diving here is a dream for many divers, due to the limited on the number of divers at one time, but fees are very high.

1.2 Background of Study

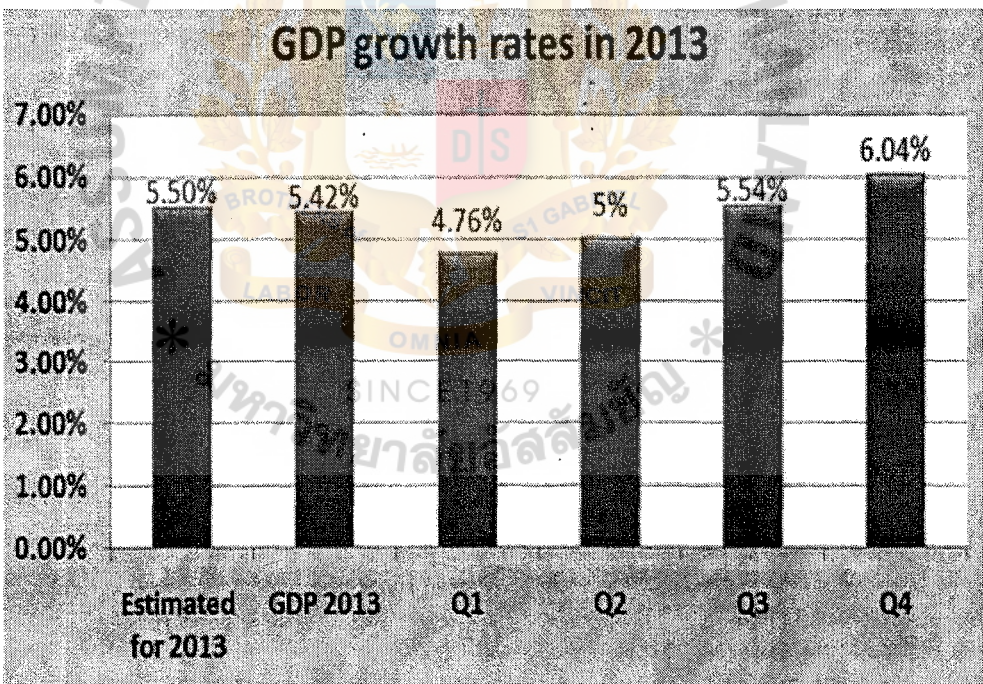
1.2.1 Viet Nam

Geographically, Viet Nam is a part of Southeast Asia, and it shares the border with China (North), Lao and Cambodia (West), and the South China Sea (East and

South). The mainland area is more than 330 thousands Km², divided by sixty-three provinces. The country has an S shape; total length is 1650 km, with 3260 km of coast line ("The Socialist Republic of Viet Nam ", 2009). Until July, 2014, the population was 93,421,835 million people. The country climate is tropical, with high temperatures and humidity ("The World Factbook," 2014)

In 2013, Viet Nam was \$358.9 billion USD ("The World Factbook," 2014), a net growth of 5.42% compared with previous year. GDP per capita was 1960 US dollars (USD). The service industry is the most profitable (6.56%) representing 2.85 percentage points in the total development ("GDP growth rate touches 5.42% in 2013," 2014).

Figure 1.2 GDP Growth Rates of Viet Nam in 2013



Sources: GDP Growth Rate Touches 5.42% in 2013. (2014). Retrieved June 14th, 2014, from <http://news.chinhphu.vn/Home/GDP-growth-rate-touches-542-in-2013/20142/20421.vgp>

1.2.2 Tourism in Viet Nam

After the Viet Nam war ended in 1975, tourism became a way to gain more foreign currency for Viet Nam, especially, during the American embargo (Cooper, 2000). Since 1981, after becoming a member of WTO (World Tourism Organization), Viet Nam tourism has steadily developed. Recently, Viet Nam welcomed more than 7.5 million tourists in 2013, bringing the tourism income to 200 trillion Vietnamese Dong (VND) (10 billion USD), an increase of 25% compared to 2012. ("International Visitors to Viet Nam in December and 12 Months of 2013," 2013; "Total Income from Tourist Arrival Period 2005 - 2013," 2014).

Table 1.1 Total Income from Tourist Arrival from 2005 – 2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Income from Tourist Arrival (in trillion VND) (1trillion VND = 47.2 million USD)	30	51	56	60	68	96	130	160	200
Growth Rate (in percentage)	15.4	70	9.8	7.1	13.3	41.2	35.4	23.1	25.0

Sources: Total Income from Tourist Arrival Period 2005 - 2013. (2014, 10/01/2014).

Retrieved July 4th, 2014, from <http://vietnamtourism.gov.vn/index.php/items/13462>

The main tourism destinations spread out from north to south, diverse in type and landscape. It could be found from the highland like Sapa, Dalat, to the Mekong delta in the south. From ancient city like Hue or Hoi An, to modern urban as Ho Chi Minh City or the capital Ha Noi, each one has its own beauty and attraction points, making Viet Nam become a new destination where is able to welcome, host and accommodate many types of tourists from the entire world.

Marine tourism also plays a very important part in Vietnamese tourism. With the coast line of 3260 kms from north to south, Viet Nam luckily has many beautiful beaches and coastal cities, such as: Ha Long, Sam Son, Do Son (Northern part); Nhat Le, Cua Dai, Nha Trang (Central part), Vung Tau, and Ha Tien (Southern part).

1.2.3 Khanh Hoa Province

Khanh Hoa is a province located in the south central part of Viet Nam. The province geographical size is 5197 km² with a population of 1.174.000 people. The province has nine administrative units including: Nha Trang city (center), Cam Ranh City, Cam Lam, Dien Khanh, Khanh Son, Khanh Vinh, Ninh Hoa, Van Ninh, and Truong Sa archipelago. With the advantages in location and natural resources, Khanh Hoa plays a very important role in Vietnamese economy, and its military ("Khanh Hoa Overview," 2011).

The coast of Khanh Hoa is 200 kms long, separated by 3 main bays: Nha Trang Bay, Cam Ranh Bay, and Van Phong Bay, and about two hundred islands. Khanh Hoa has a tropical climate, which means the average temperature is 27.2° C. There are two seasons: the rainy season (September to December), providing 75% of annually rains; and the dry season from January to August. However, interestingly, for the region around Nha Trang City, the heavy rainy season lasts only two months, thus providing favorable conditions to develop a long-lasting tourism season and give opportunities to organize year-round tourist activities. With those conditions, Khanh Hoa is a very advantageous site in developing marine tourism, that's why it is always among the top ten tourist destinations in Viet Nam ("Potentials of sea-island tourism", 2009). According to Department of Planning and Investment of Khanh Hoa Province

report (2014), the provinces GDP development is 8.5% (2013); the GDP per capita is 2000 USD. The tourism and service part give 41.6% of the total province GDP.

1.2.4 Nha Trang City

It is the central city of Khanh Hoa province. According to the census (updated in 2009), Nha trang covers 251 km², with population of 361,454 people. It only has 5% of the size and one-third of the population, but for the tourism and retail service industry, two-third of province's economy depends on Nha Trang city. In 2013, Nha Trang city accommodated approximately two million tourists, and almost 25% of them were foreigners.

Tourism in Nha Trang is quite diverse, and of various types. For the historical side are Pasteur institutes, and the Nha Trang museum. For cultural side is the Long Son Pagoda, Cham temple, city stone Church. On recreational side are the Thap Ba Mud Bath, Nha Trang Sea Park. A coastal city like Nha Trang, marine tourism has a particularly significant role for the local economy.

1.2.5 Nha Trang Bay Marine Protected Area

After the success of the first marine protection area (MPA), the Hon Mun MPA, established in 2001, the project was expanded to include the Nha Trang MPA in 2005. The area includes the sea side with seven tourism islands (out of 12 islands in total) Tre Island, Tam Island, Mieu Island, Mot Island, Cau Island, Vung Island, and Mun Island.

Particularly, Mun Island is a very well-known place as a diving area. Basically, the name of the Island means Black, because the main color of the specific stone is black. This stone draws by people's attention from their very first moment

they access to the Island. Biologically, the Island has more than four hundred of coral species, two hundred-twenty-two fish species, and plenty of others marine types and species. Mun Island is considered to be one of the most diverse areas in Southeastern Asia in terms of biology. Unavailability of island residents and intensive protection could be the explanation for that diversification (Nguyễn, 2012).

1.3 Statement of the Problem

Nha Trang is one of the most well-known destinations in Viet Nam, located in the south-central part of Viet Nam, well known for its marine tourism. The unique points are a yellow sandy beach and the Marine Protected Area (MPA); these made it become a member of “thirty most beautiful bays in the world” club.

Plenty of tourism activities for Nha Trang are organized, such as swimming, surfing, diving, sightseeing... making Nha Trang’s marine tourism become a very diverse and attractive site. Statistically, in 2013, there were more than two million tourists (including international and domestic) who visited Nha Trang, one of the highest number of visitors’ destinations in Viet Nam (Lê, 2012).

With the establishment of “Nha Trang Bay Marine Protected Area”, Nha Trang became a favorite destination for diving tourism in Viet Nam. In 2013, there were more than twenty thousand divers participated in the Nha Trang MPA. Economically, Nguyễn (2012) said that there were 1,27 million people who visit Nha Trang, and 10% of them got involving in travelling, swimming and diving in Nha Trang’s MPA. Visitor contributes to 2% of the total provincial GDP, representing 2.35 million USD.

Globally, diving has been considered one of the most developed forms of tourism. According to PADI (Professional Association of Diving Instructor, the

world's large diving organization), in 2012 there were nearly one million new members were certified, and the numbers are growing at the average of 14% every year. The main international scuba diving destinations are Australia's Great Barrier Reef, the Red Sea, Caribbean, etc.

Recently, as it can be seen in the top ten dive places listed on page 4 - 7, Nha Trang diving tourism industry is facing a very high competition from many other dive sites. More seriously, some of those big competitors are located in Southeast Asia, such as Phuket in Thailand, Sipidan in Malaysia, Sulawesi in Indonesia, so the particular mission of diving tourism in Nha Trang now is attracting visitors by increasing competitive advantages and maintaining customer loyalty. Service quality has been proved to be a factor that help service firm to differentiate, and leave behind their competitors and warrant the competitive advantage (Baker & Crompton, 2000; Saleh & Ryan, 1991). Researchers have shown that good service quality also creates customer satisfaction, loyalty and the willingness to pay (Baker & Crompton, 2000; Gonçalves & Sampaio, 2012). Therefore, the purpose of this study is to provide recommendations for improving service quality of Nha Trang's diving tourism. To accomplish this, the study proposed the following research questions to address the current situation, and finding potential suggestions.

1.4 Research Questions

1. What are divers' concerns regarding the importance of service quality and their post diving experience that performed by the diving tour operator?
2. What needs to be done for improving service quality of diving tourism in Nha Trang Bay?

1.5 Research Objectives

a. To answer the first research question, the objectives are:

1. To examine the diver's opinion about importance of diving trip based on five dimensions of service quality (tangibles, reliability, responsiveness, assurance, and empathy) of dive tour operators.
2. To understand divers' opinion on five dimensions (tangibles, reliability, responsiveness, assurance, and empathy) of the service quality provided as diving experience by dive tour operators.
3. To determine the attributes that dive tour operator should concentrate on to ensure its competitiveness

b. Finding recommendations to improve the diving service quality:

1. To create divers' profiles (age, gender, occupation, education level, nationality, diver experience, diving purposes)
2. To analyze the status of development of Nha Trang's diving tourism industry.
3. Address the current situation of the diving tourism industry from the Importance/Performance Analysis.
4. Finding recommendations from previous studies and diving industry experts.

1.6 Scope of the Study

This research target group was divers in Nha Trang. It does not cover every diving tourist, due to the difficulty of accessing the small group of divers who did not plan for whole day diving trips, and diving is just one of their activities in the day bay trip (travelling around the bay).

This study focuses on service quality importance/performance of diving activities in main diving clubs in Nha Trang those which are operated diving trips by professionals. They are: Vietnam Explorer Center, Rainbow Divers, Happy Diving

Center, Ocean 5, Scuba Dive Vietnam, Amigos Divers, Sailing Club Divers, Turtle Dive Center, Scubadoo, Coco Dive Center, Fun Divers, Scuba Zone, and Vina Dive. The list was acquired after a review the diving tour operator registration list provided by the Nha Trang MPA Management Board.

Also, the study did not include diving activities that are not for recreational purpose such as: scientist research diving and local fish hunting diving.

1.7 Limitations of the Study

With the purpose of covering as many divers as possible, this research is conducted in English with Vietnamese and Russian translations for the surveys, but it is not available in other languages, for example: Chinese, Korean...whose tourist numbers are still small but increasing steadily nowadays. In details, Korean is 34,759 people (4.41%) and Chinese is 27,786 people (3.6%) ("Statistical Report of Tourist Nationality", 2014).

The overall purpose of this study is to improve service quality, so that it will result customer satisfaction, customer retention, and competitive advantages. Although service quality is the vital originator for customer satisfaction, and customer retention, it is not the only factor. In diving tourism, customer satisfaction also comes from many factors, such as personal, experiential, and situational factors like the weather, diving companions, water temperature (Tian-Cole & Crompton, 2003). McCarthy, O'Neill, and Williams (2006) mentioned that customer satisfaction in diving tourism also comes from the dive itself, or in other terms is the experiential factor such as water clarity, type, color and volume of marine life. Those factors somehow can give indirect results to customer retention by affecting customer satisfaction.

Finally, the questionnaire of this study was distributed in the period from November 2014 to January 2015. The data collected during that period do not explain guest attitude for the whole years round.

1.8 Significance of the Study

This study emphasized the role of diving tourism in Nha Trang's tourism industry. According to Nguyễn (2012), tourism was developed in Nha Trang since 1980, and played a dramatically role in the city's economy. However, in the master plan for Nha Trang's tourism (period 2010 – 2020), the diving tourism development plan was not considered appropriately by people in charge. On the academic side, diving tourism and its impacts in Nha Trang have been studied very carefully from the environmental perspective (Lindsey & Holmes, 2002; Nguyễn, 2012), but in the economic impact and service quality, was not studies as well as the environmental impact. The numbers of researches are very limited.

This study covers much demographic information about diving tourists that was hardly investigated in details until now, so it would be useful a further management action in the future.

The research helps to understand what attributes of service quality that diver considered as important from diving tourism in Nha Trang, so dive tours operators can draw their performance to match with these attributes.

1.9 Definitions of Terms:

Assurance: “Knowledge and courtesy of employees and their ability to convey trust and confidence” (Zeithaml, Parasuraman, & Berry, 1990, p. 26).

Diving Tourism: “Diving tourism involves individuals travelling from their usual place of residence, spending at least one night away, and actively participating in one or more diving activities, such as: scuba diving, snorkeling, snuba or the use of rebreathing apparatus” (Garrod & Gössling, 2008, p. 7).

Diving tours Operators: “Dive shops which have a retail store offering a variety of services, including tours; and dive tours operators who principally offer shore or boat dives, without necessarily having a shop or an office” (Tabata et al., 1992).

Diving site: “A diver site is a specific near shore location where tour customers are taken for either boat or shore dives” (Hall, 1992).

Empathy: “Caring, individualized attention the firm provides its customers” (Zeithaml, Parasuraman & Berry, 1990, p. 26).

Importance: It refers to the perceived importance of an attribute (Carman, 1990)

Marine Protected area: “Any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment” (Kelleher, 1999).

Performance: Way in which someone or something acts (Collin, 1988).

Reliability: “Ability to perform the promised service dependably and accurately” (Zeithaml et al., 1990, p. 26).

Responsiveness: “Willingness to help customers and provide prompt service” (Zeithaml et al., 1990, p. 26).

Service: “Service is separately identifiable, intangible activities which provide want satisfaction when marketed to consumer and/or industrial users and which are not necessarily tied to the sale of a product or another service” (Stanton, 1975).

Service quality: Perceptions resulting from a comparison of consumer expectations with actual service performance (Parasuraman, Zeithaml, & Leonard, 1988).

Tangibles: “Appearance of physical facilities, equipment, ersonnel, and communication materials” (Zeithaml et al., 1990, p. 26).



CHAPTER 2

LITERATURE REVIEW

2.1 The Nature of Diving Tourism

As expressed earlier in this study, diving tourism is categorized as special interest tourism (Tabata et al., 1992), grouped in the rural setting and subset of adventure tourism (Hall, 1992; Swarbrooke, 2003). However, Van Treeck and Schuhmacher (1999) pointed out tourism managers viewed diving tourism as a mass tourism with the spirit of individual adventure sport, due to the number of participants which is increasing annually. Moreover, it has caused several impacts in different perspectives such as: environment, social and economic; so it should be considered as an industry.

2.1.1 Motivation for Diving Tourism

World Tourism Organization (1985, p. 3) define special interest tourism as:

“Active holiday could be defined as holidays during which a person engages in a cultural, artisanal or leisure activity or sport with a view to fulfilling himself and developing his personality. Special interest tourism, meanwhile, is a specialized tourism involving group or individual tours by people who wish to develop certain interests and visit sites and places connected with a specific subject. Generally speaking, the people concerned exercise the same profession or have a common hobby.”

Table 2.1: A Conceptual Framework of the Motivation and Activities of Participants in Adventure, Health and Sports Tourism

MOTIVATIONS	ACTIVITY		
	Less active ←————→ More active		
<div> Non-competitive <div> ↑ </div> <div> ↓ </div> Competitive </div>	Health tourism (e.g. spa tourism, health travel)	Health tourism (e.g. fitness retreats)	Adventure travel (e.g. whitewater rafting, Scuba diving, hiking)
	Adventure travel (e.g. yacht chartering)	Touristic activities which contain element of health sport and adventure tourism (e.g. cycling, sea-kayaking)	Adventure travel (e.g. climbing)
	Sport tourism (e.g. spectating)	Sport tourism (e.g. lawn bowls)	Sport tourism (e.g. ocean racing)

Sources: Hall, C. M. (1992). *Special Interest Tourism* (1st ed.). London: Belhaven Press, p. 142.

Table 2.2: The Motivations Associated with Special Interest Activities

Setting	Special Activities	Related Motivations
Urban	Museums	Novelty, discovery, diversity, authenticity, uniqueness, education
	Art galleries	Emotion, beauty, exclusiveness, uniqueness, authenticity, education
	Heritage	Atmosphere, ambience, perceived, authenticity, discovery, education
	Art and community festival	Authenticity, emotion, escape
	Performing arts	Emotion, escape

...Continued on next page

Table 2.2 The Motivations Associated with Special Interest Activities (continued)

	Cultural (ethnic) travel	Authenticity, uniqueness, social contact, novelty, education
	Sport tourism	Spectating, improved physical well-being, social contact
Rural	Cultural (ethnic) travel	Authenticity, uniqueness, social contact, novelty, education
	Art and community festival heritage	Authenticity, emotion, escape
	Adventure travel	Risk seeking, self-discovery, self-actualization, contact with nature, social contact
	Health tourism	Improved physical well being
	Sport tourism	Improved physical well-being, social contact
	Farm and ranch tourism	Contact with nature and the rural environment, social contact, discovery
Nature	Nature-based tourism	Contact with nature, discovery, knowledge, education, scientific curiosity
	Adventure travel	Risk seeking, self-discovery, self-actualization, contact with nature, social contact

Sources: Hall, C. M. (1992). *Special Interest Tourism* (1st ed.). London: Belhaven Press, p. 3.

Diving tourism has the characteristics of most active adventure travel with non-competitive (Table 2.1). The diving tourist motivations are: risk seeking, self-discovery, self-actualization, nature contact, social contact, and activities in the nature (Table 2.2).

2.1.2 Service in Diving Tourism

Like most adventure tourism, diving tourism depends very much on typically personal motivations and expectations, so understanding and gaining that niche market is very challenging for the service providers, because those personal motivations and expectations are extremely varied among people (Swarbrooke, 2003). Tian-Cole and Crompton (2003) name it as experience's quality. However, if the adventure service providers, mostly small and medium sized, can achieve that, then they can gain a significant competitive advantage because adventure tourist greatly focus on brand loyalty and business reputation (Swarbrooke, 2003).

The challenge is not only for the supply side, but it is also for the demand side. Most of adventure tourism, including diving, requires the tourist who participates in the activities to have a certain certificate (e.g. diving certificate). Some of the activities ask for a membership in order to have control over the membership and their contribution for the funding for adventure side by charging an annual fee. Particularly, to gain a certain experience according to tourist demands from adventure activities, before choosing a destination or activities, they need to consider:

- The degree of remoteness that they want,
- The levels of skill required for involving in the activities,
- The level of effort required the activities,
- The opportunity for responsibility from the activities.

Diving tourism service has exactly the same characteristics as every other kind of service (intangibility, inseparability, imperishability, variability). However, it can be seen that the very high inseparability characteristic of service is specifically designed for adventure tourism, likewise diving tourism activity. Diving service

suppliers and diving service consumer (or divers) need to have an intensive understanding and highly coordinated interaction to gain the best outcome after the activity. The research of Ince and Bowen (2010) underlined that interaction by finding out that social aspect, or the interaction between divers in the same boat (dive guide, dive companions), is in top three most important factors to gain a satisfied feeling in diving trip. Barker and Roberts (2004) suggested that diving tours should be in small group (3- 5 people), so that dive guide can interact, take better care of the diver, and enhance the diving quality.

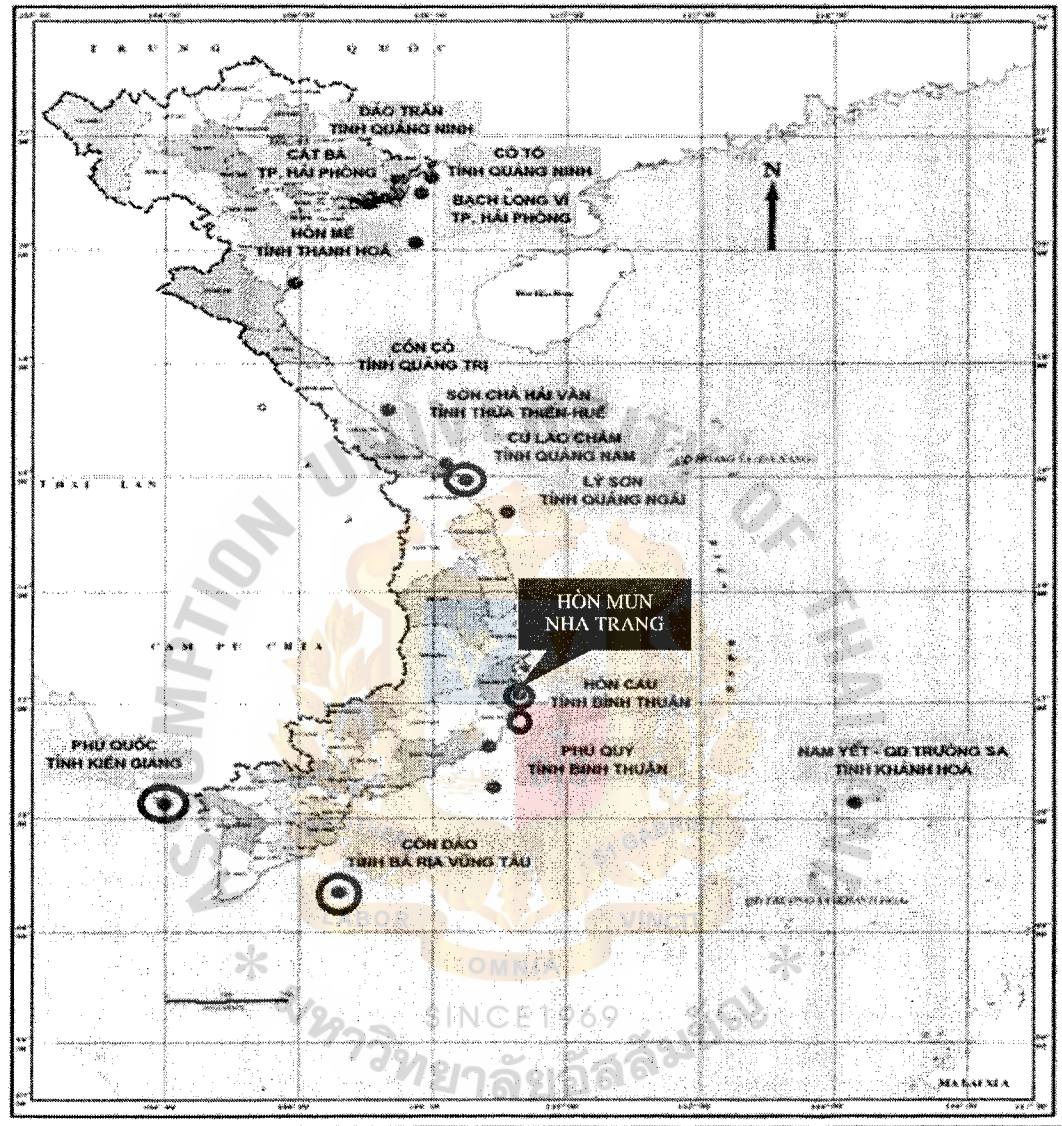
2.2 Diving Tourism in Viet Nam

2.2.1 Diving Locations

By 2015, there will be sixteen MPAs in Viet Nam, located evenly from North to South (Figures 2.1) (Decision 742/QĐ-TTg, 2010). Diving tourism service is provided in five out of the sixteen MPAs in Viet Nam, including Cham Island MPA, Nha Trang Bay MPA, Núi Chua National Park, Con Dao National Park, and Phu Quoc MPA. These are all placed from the central to southern part, where the water current, temperature, and climate conditions are suitable for coral reef ecosystem. In 2013, the exploratory research of Nguyễn and Thái (2012) provided a wealth of information about diving tourism in Viet Nam which has never been officially investigated before.

Figures 2.1 The MPA network in Viet Nam (Decision 742/QD-TTg, 2010)

show nha trang location



- Marine Protected Area
- Availability for diving tourism activities

Hoang, T. H. (2010). *Decision Approving The Plan on The System of Vietnam's Marine Conservation Zones through 2020*, 742/QD-TTg, Ha Noi: Prime Minister Office.

Table 2.3 Diving Sites in Viet Nam

Name of MPA, Establishment Year	No. of tourists in 2013	Service provided	Diving season
Cham Island 2006	3,372	<ul style="list-style-type: none"> - Fun SCUBA diving - Trial SCUBA diving - Snorkeling 	Unreported
Nha Trang Bay (Khanh Hoa) 2001	20,317	<ul style="list-style-type: none"> - Fun SCUBA diving - Trial SCUBA diving - Snorkeling - Glass-bottom boat 	All year round
Nui Chua Bay (Ninh Thuan) 2003	unreported	<ul style="list-style-type: none"> - Watching coral reefs - Onboard of glass-bottom boats 	March – September.
Con Dao National Park (Ba Ria – Vung Tau)	3,600	<ul style="list-style-type: none"> - Fun SCUBA diving - Trial SCUBA diving - Snorkeling 	March – August.
Phu Quoc Island (Kien Giang) 2011	18,285	<ul style="list-style-type: none"> - Fun SCUBA diving - Trial SCUBA diving - Snorkeling 	Unreported

Source: Nguyen and Thai (2013). Viet Nam– Diving Tourism Industry

Characteristics: Current Policies and Regulatory Framework; Threats and Opportunities. Philippines: United Nations Environmental Programme. p.3.

It can be clearly seen that most of the diving sites are operating with similar services such as: Fun Scuba diving, Trail diving, Snorkeling, and Glass Bottom boats. Compared to other diving places in the same region, the diving services in Viet Nam are quite simple. Many places such as: Thailand, Malaysia, Indonesia, besides similar basic service, they also provide more professional and sophisticated service, for

example, diving cruises (divers stay in the dive cruise and dive for 2 – 3 night with different places and activities), night diving, artificial reef diving (Bennett, 2002; Musa, 2002).

Number of visitors coming to Nha Trang Bay and Phu Quoc Island diving sites were the highest (20,317 in Nha Trang and 18,285 in Phu Quoc). This phenomenon can be explained by two reasons: the first reason was favorable weather conditions. For Nha Trang, unlike most cities in the south central region, the rainy season in Nha Trang lasts for 2 months (September and October) instead of 6 months in other areas, so there is more available time for diving activities. Secondly, it can be easily observed from Table 2.3 that the Nha Trang MPA was the first Marine Protected Area in Viet Nam, and it helped to gain more experience and priority in the market share. For Phu Quoc, the island tourism was only started in the last decade and it is still under development. It is very well-known as a new destination for its richness of natural resources. Moreover, the Vietnamese government takes great care for Phu Quoc to develop as a new economic hub for the southwestern part of Viet Nam. The plan has been implemented impressively, and the number of tourist is evidence to verify the efficiency of their plan.

2.3 Diving Industry in Nha Trang

2.3.1 A Diving Trip

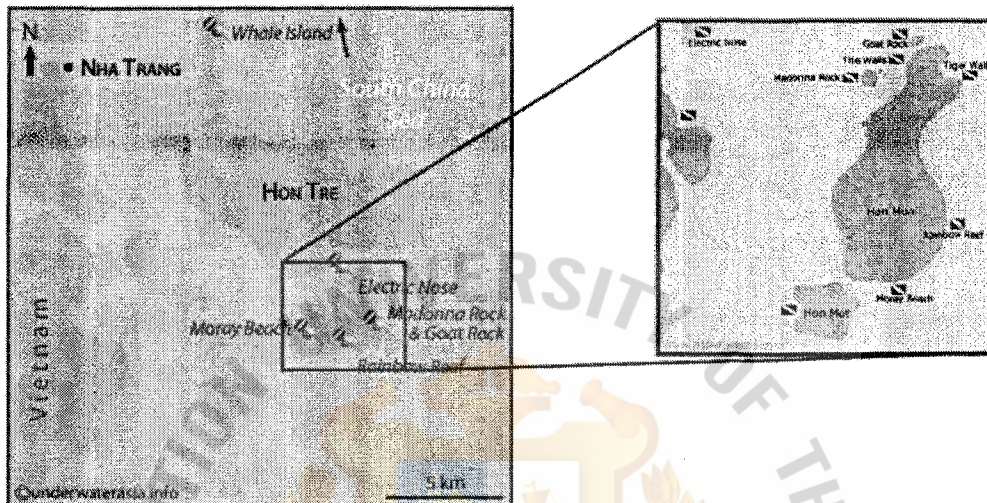
Most of the trips started early in the morning by picking up guests from their hotel by van. Before the trip, dive guides (attendants for service on the boat and who guide the divers under water) will have to prepare equipment and check the safety standards. The van will arrive at the port around eight o'clock in the morning, then the vessel captain has to register for sailing; the MPA sustainable fee is also paid here, at the port. At the same time, diving guides would direct guests to the vessel and deliver equipment. It takes about thirty minutes sailing to reach the diving place (Mun Island) (Figure 2.2, p.28). On the way to diving place, divers are briefed about breathing methods, underwater languages, and safety guidelines. Regardless of the diver's levels, the process has to be obeyed strictly for every trip for safety. Upon arrival, divers are suggested to warm up and check diving equipment once more.

The dive has to be operated with limitations of two to five diver companions and one diving guide at a time. Underwater, every diver has to strictly follow diving guide's directions; otherwise they will be refused to dive. Divers with different levels of experience will be allowed on different levels of depths, times, and locations. The normal trip would include two dives in two different locations for 30 – 45 minutes each. However, the second dive could be cancelled if the divers are not able to continue due to their health conditions.

After the dive, divers will have lunch on the boat, food and drinks will be provided by the diving guides. Divers would have lunch together and discuss their diving experience. Some tour operators also entertain guest by providing guests with guest's underwater pictures and music.

The trip is completed at around one o'clock in the afternoon, and dive guides will prepare every diver for returning to their hotels. On the port arrival, divers are taken to their hotel by van at around two o'clock in the afternoon.

Figure 2.2 Diving Site in Nha Trang MPA



Sources: Hunt & Harvey, (2013). Viet Nam Situation Analysis. Nha Trang: Reef-World Foundation.p.2

2.3.2 Current Situation of Diving Tourism in Nha Trang

Hunt and Harvey (2013), after conducting research for Green Fin project (an environmental project for improving diver responsibility) in Nha Trang MPA, analyzed the current situation in Nha Trang diving tourism.

First of all, since diving tourism started in 2005, it has created important income sources for local people. In an employment perspective, the dive guides are recruited from local people, who are trained and certified by diving center managers, who is most of the time, a foreigner. Moreover, most of the diving boats are transformed from fishing vessels, and the captain is a local fisherman. The industry gives them another source of income, rather than depending only on fishing industry.

Furthermore, the related services providers also benefits from diving tourism, such as: floating restaurants, souvenir shops, and others business activities.

Secondly, the common rate for two dives including the kit hire in one day is about 45 USD. Compare to other places, this rate is low, so the services are on basic quality. The divers have several ways to book for services: walk-ins, hotel agents, calling, or even internet booking.

Negative environmental issues are easily seen here due to insufficient management action. However, some environmental projects, like project AWARE, Green Fin, etc. are starting to work to improve the environmental standard for the diving industry in Nha Trang.

2.4 Divers Classifications

Rice (1987) suggested that divers should be classified by three types according to their diving experience:

1. Hard core diver: the one who searches for the challenges of the dive destination, and looks for the specific flora and fauna of the particular location.
2. The tourist divers: scuba diving is just a part of their vacation; it may not be their main purpose of the trip.
3. The potential diver: they are referred as a very new diver, or someone who intends to learn diving.

Wilks and Davis (2000) classified divers as their level of dive experience:

1. The first group is a trained and certificated group by an accredited training agency. These certificated divers carry a card that allows them to rent

equipment and to dive in pairs under conditions similar to those in which they were trained.

2. The second group comprises divers in the process of being trained. As part of the certification program to acquire a license, each candidate must demonstrate their skills over at least four open-water dives under the supervision of an instructor.
3. The third group have not been trained or certified. For many of these “introductory” or “resort” divers, their first experience underwater on SCUBA was probably not planned in advance.
4. The fourth group of divers includes certified instructors and diving masters, who run their own diving charter/instruction business or are employed by a particular operator on a seasonal basis.
5. The last group of diver may be classed as those who engage in recreational diving at a distance from normal commercial operations, while in the majority of instances these divers are dive certified, many are not, with divers having their own equipment and means of getting to and from actual dive sites.

2.5 Service

2.1.1 Service Definitions

Service is an idea, task, experience, or activity that can be exchanged for value to satisfy the needs and wants of customers and business (Harrell, 1999). Service has four characteristics that could only be found in service products rather than goods products (Kurtz & Clow, 1998).

1. Intangibility:

Unlike goods, service cannot be touched, smelled, heard, or tasted before purchasing. However, each type of service offer can contains a certain tangible item. For example, food, dishes, tableware...are pure tangible items in the restaurant, which can be touched or smelled. Likewise the diving tourism, the boat, diving equipments are the tangible parts. As long as the service is the core value of purchasing, that product is still accounted as a service product.

Because of the tangible characteristic, understanding how consumers perceive and evaluate services is a firm challenge (Parasuraman et al., 1985). The problem would be overcome by:

- Increasing the tangible evidence,
- Stimulating word of mouth communications,
- Creating strong corporate image,
- Empower service employees to provide the services.

To reduce the intangibility, diving operators should improve the tangible assets such as diving boats, rental diving items, and emphasize the level of diving masters.

2. Perishability:

Perishability means that service cannot be stored; it has to be produced and consumed at the same period of time. For example, a hotel room night cannot be stored for the day after service. If the hotel room night is not sold, it means the hotel lost an opportunity to gain revenue from the unsold room night. Similarly in diving tourism, if the dive operator cannot sell a dive trip, they lost an opportunity to earn revenue on that diving day.

For reducing the impact of perishable characteristic of service, service marketers must build up long term strategies and plan to cover the fluctuating demand for at least for one year in advance. The plan includes understanding both side of the demand and the supply equation. The widely used tool using is giving promotions to gain sales in the low season and control the demand by charging higher prices in the peak season.

3. Inseparability:

Unlike goods, service cannot be produced for consumers at different times. Indeed, it has to be performed and consumed simultaneously, so the product's quality is highly relied on the ability of service providers through interactions with customers. Customers have to be physically involved in the service, and service providers, in this case, become a part of the service product. For example, the diving guide, who takes care of diving guests need to be physically present in the process of delivery service, and become involved to adjust the quality of the service. To manage this characteristic, the first-line employee empowerment is need, which helps service providers to treat customers with the same attitude, without interruptions by other decisions. However the service training is also needed to ensure a firm standard is maintained.

4. Variability:

Variability refers to a different level of quality in service that customers might receive. It mostly comes from the situation in which that service was provided (where, when, who, how). The problem that affects the service providers is that they can never be exactly 100% consistent all the time; it is surely affected by human element, which is impossible to control in total. To reduce the negative outcome from the moment of service encounters, firms need to manage the service delivery systems by setting up

the service standard of the delivery processes and the process that evaluates the outcomes. With the help of new technologies, service nowadays can avoid the impacts of perishable characteristic by using machine for interaction with customers. For example, reservations can be done through the internet for hotel booking, or self-check counters for the airline industry.

2.6 Service Quality

2.6.1 Quality in Service

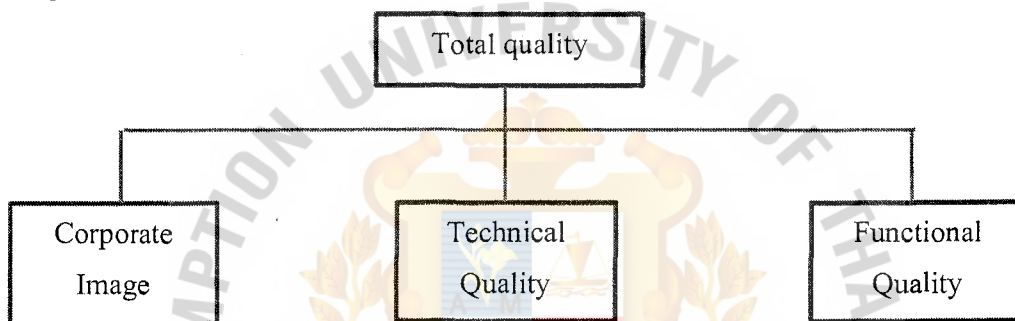
The competition in the service area is increasing significantly nowadays; and the service firms have no choice but improve their service quality. Service quality has been researched and discussed over decades all around the world by both the academic and practitioners. From the beginning, the theory of service quality is developed from product quality and customer satisfaction theory. Early researches are based on the confirmation/disconfirmation paradigms employed in the physical goods literature. One of the very first studies about service quality, Parasuraman Zeithaml and Berry (1985) discussed about service quality themes:

- Service quality is more difficult for customers to evaluate than goods quality
- Service quality perceptions result from a comparison of customer expectations with actual service performance.
- Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.

In another study of Grönroos (1982) mentioned three elements that affect service quality (Figure 2.3, p. 34), the functional quality, the technical quality, and the corporate image. In details, the technical outcome affected service process, and became an importance for evaluation of service quality. Furthermore, service product

is an interaction performance between consumers and providers, so entire service quality is also adjudge by delivery process. Or, technical quality can be simplified as “what” the customers get, and functional quality is “how” they get that. In this research, Grönroos also studied another factor called “corporate image”; the author said that the expectation of the consumers were affected by the perceptions about the firm, and the firm’s image is delivered by the firm service, so it can affect the total perceived quality.

Figure 2.3 Grönroos Model of Service Quality



Sources: Grönroos, (1982). An Applied Service Marketing Theory. *European Journal of Marketing*, 16(7), 30-41

2.4.2 Service Quality Gap Model

In 1985, Parasuraman, Zeithaml and Berry established service quality gap model, the purpose of the gap is to analyze sources of service quality problems and how to improve them. The total model (Figure 2.4, p. 37) describes the relationship between the service consumer and service supplier, how service is delivered, and the gap that occurs between stages of delivering service.

Gap 1: The management perception gap (consumer expectation – management perception gap)

Management perceives consumer expectation insufficiently. The reasons are:

- Incorrect information from the market research analyses
- Misunderstood information about expectations
- Lack of analysis
- Bad or nonexistent upward information from the firm's interface with its customer to management and
- Too many organizational layers which stop or change the pieces of information that may flow upward from those involved in customer contact

Gap 2: The quality specification gap (management perception – service quality specification gap)

The service quality specifications are not consistent with management perceptions of quality expectations. It occurs because of:

- Lack of planning procedures
- Unappropriated management planning
- Unclear goal setting
- Lack of support from top management for service quality planning

Gap 3: Service delivery gap (service quality specification – service delivery gap)

Service production people and delivery process fail to meet quality specification. It is a result of:

- Too complicated and/or rigid specifications
- The service specifications are not agreed on by employees
- Specification is not fixed with corporate culture

- Bad service operations management
- Insufficient internal marketing
- Specification is not accorded to organization system and technology.

Gap 4: The market communication gap (service delivery – external communication gap)

The service delivery is not reached what is promised by service firm. It is because:

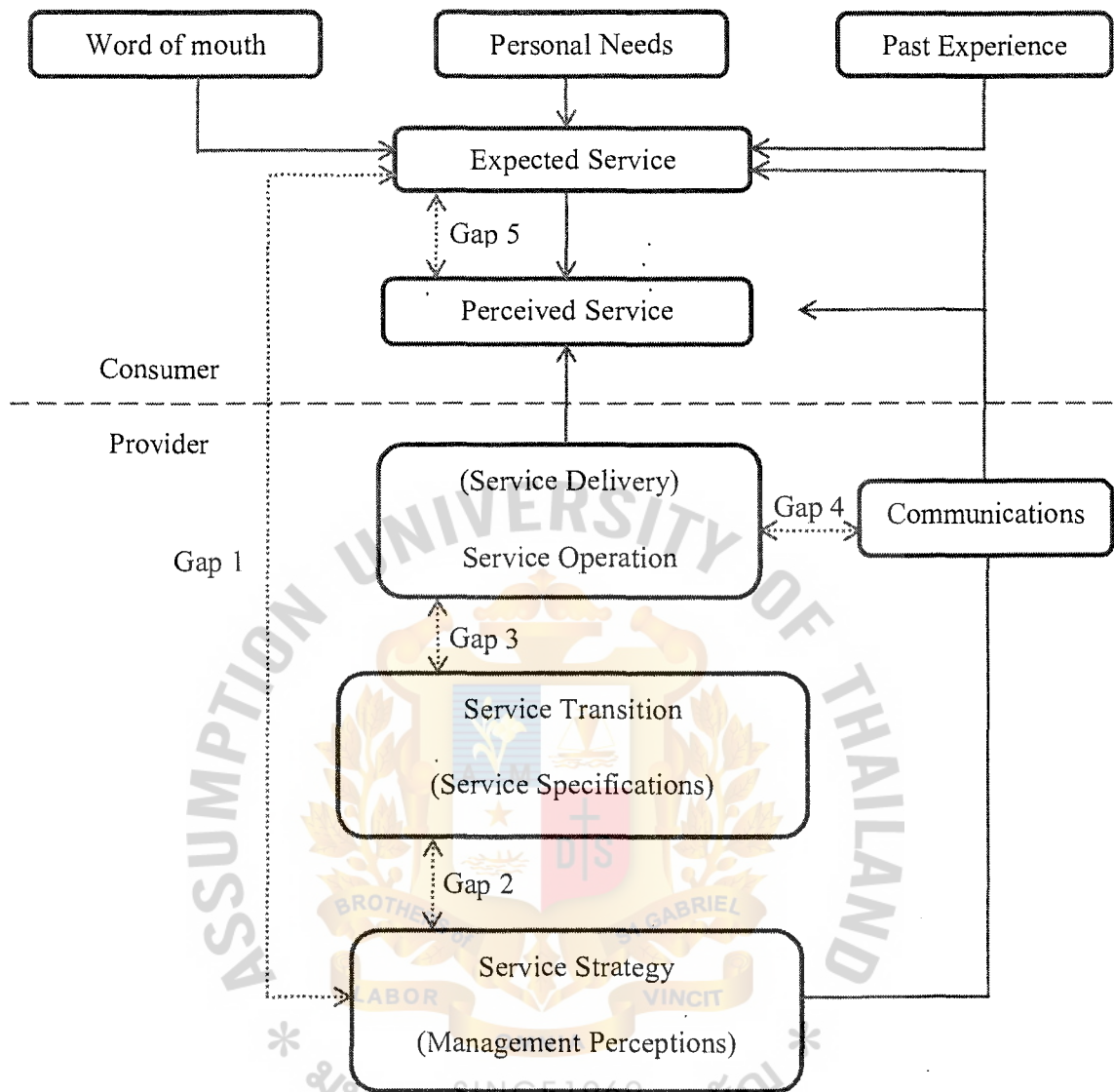
- Market communication is not integrated with service operations.
- Unappropriated coordination between external marketing and operations
- The specification is not performed according to marketing communications campaigns.
- Promised more than what service firms were able to deliver.

Gap 5: The perceived service quality gap (expected service – perceived service gap)

Perceived service is not consistent with the expected service. The reasons are:

- Negative confirmed quality
- Negative word of mouth
- Bad corporation image
- Bad business performance

Figure 2.4 The Service Quality Model



Source: Parasuraman et al., (1985). A Conceptual Model for Service Quality and Its Implication for Future Research. *Journal of Marketing*; 49(4), 41.

2.7 Service Quality Measurement

There are several service measurement techniques for firms to measure how customers evaluate their services. After that, they can address the problem and find out the solution to improve the service provided system. Depending on the purpose of

the measurement, firms can flexibly choose the suitable tools. The details of some techniques are listed below.

2.7.1 SERVQUAL (Service Quality) Model

Parasuraman, Zeithaml and Berry (1985) are the first group who conceptualized the service quality gap, and the SERVQUAL model. With the purpose of investigation gap 5 (perceived service quality gap) in “service quality gap model” (Parasuraman et al., 1985), SERVQUAL measures how customers perceives the quality of service by comparing customers’ expectations and their perceptions in ten determinants: Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security and Understanding/Knowing Customers. The details of ten determinants are mention in the table 2.4 below.

Table 2.4 Determinants of Service Quality

Determinant	Attributes
1. Reliability Performance consistency and dependability	<ul style="list-style-type: none"> • The firm performs the service right at the first time • Firm honors its promises involves: <ul style="list-style-type: none"> ○ Accuracy in billing ○ Keeping record correctly ○ Performing the service at the designated time
2. Responsiveness Employees willingness or readiness for providing service	<ul style="list-style-type: none"> • Timeliness of service: <ul style="list-style-type: none"> ○ Mailing transaction slips immediately ○ Calling the customer back quickly ○ Giving prompt service

...Continued on next page

Table 2.4 Determinants of Service Quality (continued)

3. Competence Possession of the required skills and knowledge to perform the service.	<ul style="list-style-type: none"> • Knowledge and skills of the contact employees • Knowledge and skill of operational support personnel • Research capacity of the organization
4. Access Approaching and ease contact	<ul style="list-style-type: none"> • The service is easily accessible by telephone • Waiting time to receive service is not extensive • Convenient house of operation • Convenient location of service facility
5. Courtesy Politeness, respect, consideration, and friendliness of contact personnel	<ul style="list-style-type: none"> • Consideration for the customer's property • Clean and neat appearance of contact personnel
6. Communication Keeping customers informed in communicable language	<ul style="list-style-type: none"> • Explain the service itself • Explaining how much the service will cost • Explaining the trade-offs between service and cost • Assuring the consumer that a problem will be handled
7. Credibility Trustworthiness, believability, honesty and having customer's best interest at heart	<ul style="list-style-type: none"> • Company name • Company reputation • Personal characteristics of the contact personnel • The degree of hard sell involved in interactions with the customer
8. Security The freedom from danger, risk, or doubt	<ul style="list-style-type: none"> • Physical safety • Financial security • Confidentiality

...Continued on next page

Table 2.4 Determinants of Service Quality (continued)

9. Understanding/knowing the customer Making the effort to understand customer's needs	<ul style="list-style-type: none"> • Learning the customer's specific requirement • Providing individualized attention • Recognizing the regular customer
10. Tangible The physical evidence of the service	<ul style="list-style-type: none"> • Physical facilities • Appearance of personnel • Tools or equipment used to provide the service • Physical representations of the service • Other customers in the service facility

Source: Parasuraman et al., (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41.

After that, the later study of Parasuraman, Zeithaml, and Berry (1988) grouped 10 determinants to be five dimensions as follow (Table 2.5).

Table 2.5 Updated SERVQUAL Model (Parasuraman et al., 1988)

New Dimensions	Attributes	Original Dimensions
1. Tangibles	Physical facilities, equipment, and appearance of personnel	- Tangibles
2. Reliability	Ability to perform the promised service dependably and accurately	- Reliability
3. Responsiveness	Willingness to help the promised service dependably	- Responsiveness

...Continued on next page

Table 2.5 Updated SERVQUAL Model (Parasuraman et al., 1988) (continued)

4. Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence	<ul style="list-style-type: none"> - Communication - Credibility - Security - Competence - Courtesy
5. Empathy	Caring, individualized attention the firm provides its customers	<ul style="list-style-type: none"> - Understanding/ knowing customers - Access

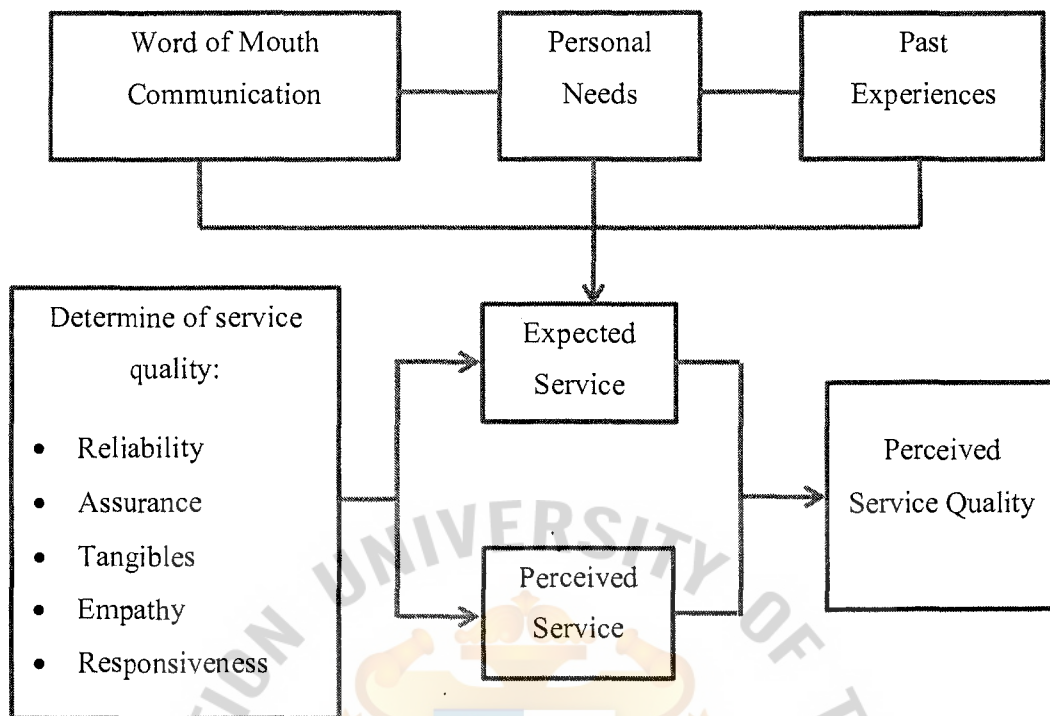
Source: Parasuraman et al., (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12-37

For each of above stated attributes, SERVQUAL measures:

- The service expectations of the consumer; and
- His or her perceptions of the service perceived

The difference between these two measurements is then assessed and used as an indication of service quality.

Figure 2.5 SERVQUAL Model



Source: Parasuraman et al., (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, 64(1), 12-37.

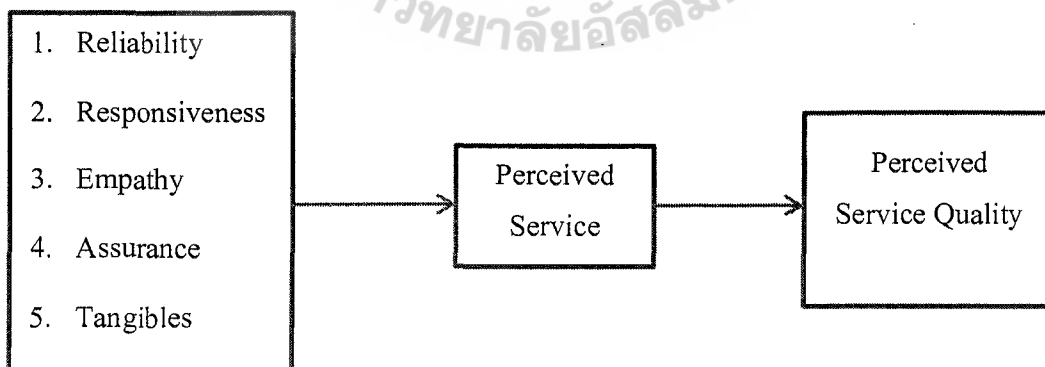
The SERVQUAL model (Figure 2.5, p. 42) has been studied, applied and modified over time (Boulding, Kalra, Staelin, & Zeithaml, 1993; Brady & Cronin, 2001; Cronin & Taylor, 1992; Parasuraman et al., 1994). However, the core concept of the five dimensions is still commonly agreed by researchers.

Usually, a set of twenty-two attributes were used to describe the five determinants (Zeithaml et al., 1990). Respondents have to state the level of service that they expected, and later, describe how they perceived the provided service by rating the five points on the Likert scale from strongly disagree to strong agree. That's why it has another name called RATER.

2.7.2 SERVPERF (Service Performance) Model:

Cronin and Taylor (1992) reexamined the concept of perceived service quality and the SERVQUAL model. They agreed that the perceived quality was a very important factor to lead to customer satisfaction and to customer retention. They also supported the 5 dimension measurement, with the twenty-two attributes. However, they proposed a new model, named SERVPERF (Figure 2.6), a performance-based scale developed, modified from SERVQUAL (not on expectation and performance). The new model measures service quality as an attitude, it does not count the customers' expectations, and it is focused only on the service firm's performance. SERVPERF model is somehow more useful than SERVQUAL for performance measurement. Under the SERVPERF model, only the post-consumption perceptions of performance are assessed. Cronin and Taylor (1992) showed that SERVPERF model is fitted with all four industries that had been chosen for the test (dry cleaning, banking, fast-food, pest control), but SERVQUAL could only fit with two of those. Obviously, the new model provides more convenience for service users to evaluate; they only have to answer one time in this test, instead of twice as in SERVQUAL.

Figure 2.6 SERVPERF Model



Source: Cronin et al., (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3), p. 55.

2.7.3 The theory of Confirmation/ Disconfirmation of Expectations

Patterson & Paul (1993) developed the Confirmation/Disconfirmation of Expectations paradigm. The model (Figure 2.7, p. 45) was built on the basis of comparing perceived performance and expectation. Customer expectation, which is shaped by: service experiences, word of mouth, marketing communication and awareness of competition; and service performance is provided by firms. In the Confirmation/Disconfirmation of Expectation paradigm, consumers compared their prior expectations of product performance with the actual performance of the product (Swan & Combs, 1976). Confirmation resulted when the performance matched with expectation, and disconfirmation resulted when the performances did not match with expectation.

The method is as follows:

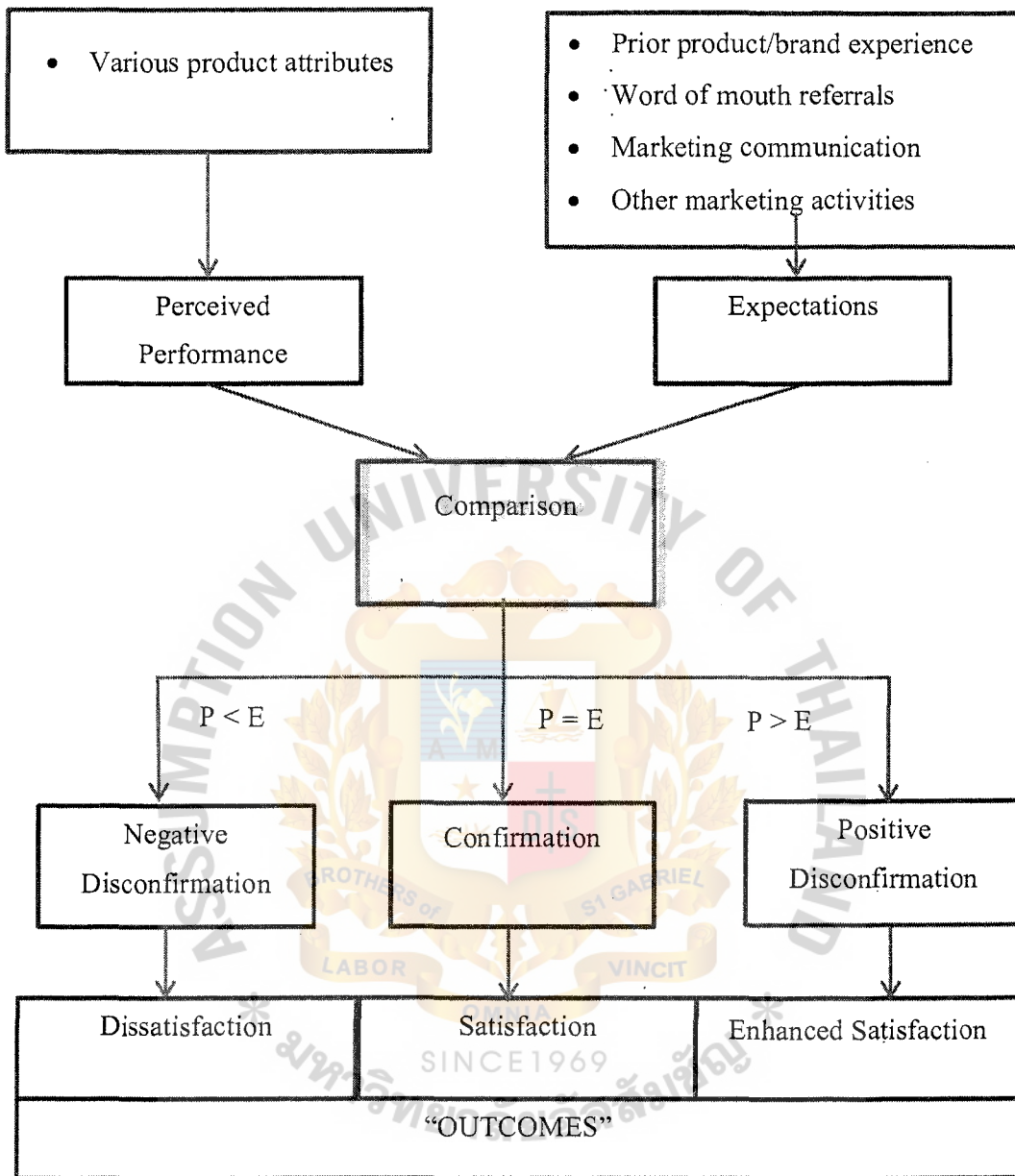
- 1) Measure the target customer expectation (E) of an idea service
- 2) Measure the feeling of customers on perceiving the actual service performance by firms (P)
- 3) Point out the difference between E and P.

The formula is:

$$\text{Expectation (E)} - \text{Perceived Quality (P)} = \text{Quality (Q)}$$

Comparison process	Result Quality
Perceived Performance > Expectation	High Satisfaction (delight) Positive disconfirmation
Perceived Performance = Expectation	Merely Satisfied
Perceived Performance < Expectation	Dissatisfaction Negative disconfirmation

Figure 2.7 Confirmation/Disconfirmation of Expectation Paradigm Model



Source: Patterson & Paul, (1993). Expectations and Product Performance as Determinants of Satisfaction for a High-Involvement Purchase. *Psychology & Marketing*, 10(5), p. 449.

2.7.4 Importance/Performance Paradigm:

The model of IPA (Importance/performance Analysis) (Figure 2.8, p. 47) was developed to figure out what are the most important attributes in customer concerns comparing to what the firm's performance for respecting the important component was (Martilla & James, 1977). IPA is a low cost, easy to understand technique. It is very advantageous for developing marketing strategies.

In the case of the homogenous characteristic participants (e.g. same motivation), the Importance Performance Analysis could be an efficient method to evaluate service quality (Vaske, Beaman, Stanley, & Grenier, 1996).

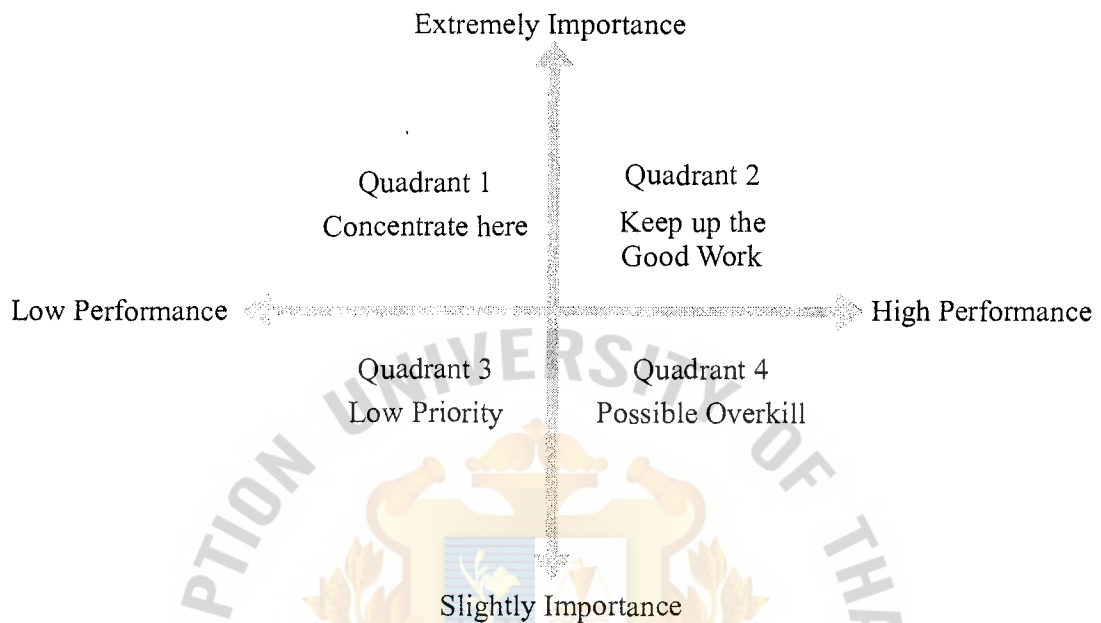
The test firstly needs a numbers of attributes; those can be collected from previous studies in the same field. The sources of attributes come from qualitative study, by many techniques; for example: group interviews, in deep interviews, and exploratory research.

IPA results are the difference in mean score between importance attributes and performance attributes. The presentation of the analyzed results, which illustrate in an axis of the grid, directly tells the firm to manage what is most important to customers, and identify the parts that are consuming too many resources for performance.

Oh and Parks (1997) (cited in Oh, 2001, p.619) referred to frequent confusion among researchers between the concept of importance and expectation. A number of IPA researchers, have often used the two concepts interchangeably where measuring and interpreting importance (e.g Chon, Weaver & Kim 1991, Evans & Chon, 1989). Martilla and James (1977) stated that importance has a close relationship with

expectations in a way that the two concepts are antecedents of performance perceptions.

Figure 2.8 Importance/Performance Analysis Grids



Source: Martilla, J. A., & James, J. C. (1977). Importance-performance analysis. *Journal of Marketing (pre-1986)*, 41(000001), 77.

2.8 Benefit of Service Quality

Since the first research, the benefit of service quality was realized (Cronin & Taylor, 1992; Grönroos, 1982; Parasuraman et al., 1985). Until today, this topic is still studied and has not become obsolescence. The eventual benefits of service quality are certainly profitability and market shares, but those benefits are achieved by many means.

1. Affect Customer Satisfaction and Customer Retention

Service quality has been stated to be an important factor for successful service business (Zeithaml et al., 1990). Firstly, it is a predecessor of customer satisfaction.

After that, the satisfaction of customers will lead them to be loyalty customers. The service quality itself also offers a direct influence to customer retention (Baker & Crompton, 2000; Cronin & Taylor, 1992; Kandampully & Hu, 2009; Parasuraman et al., 1985; Yap & Kew, 2007). Although, Cronin and Taylor (1992) argued that customer satisfaction has stronger influence on customer retention than service quality, but they can never deny the relationship between customer service quality and customer retention. As long as no business can survive without customers, service quality is still a common task for every service firm.

2. Influence the Brand Image

Grönroos (1984) said that the firm's image is built mostly with the technical quality and the functional quality of the service. A good service outcome will generate a positive firm image. Nguyen and Gaston (1998) shared the same point of view; after conducting research in financial institutions service areas, they conclude that the guest who received a higher service quality would form a positive firm image. They also suggested that service quality gave a secondary influence on the firm's image by effecting perceived service value. The statement is also true for the hotel industry (Kandampully & Hu, 2009).

3. Ensuring Sustainable Competitive Advantages

Kolter and Armstrong (2012) said that if the firms can consistently deliver a better service quality than the competitors, they are able to differentiate themselves and gain a significant competitive advantage. Buzzell and Gale (1987) suggested that gaining competitive advantage gave the firm the chance to charge a higher price for providing premium services. Guest are often willing to spend more if they perceive a superior provided service (Baker & Crompton, 2000). Then, firms have a better budget to invest in R&D (research and development) for new service products, to

ensure the unbeatable service quality in the future. After all, the customer is offered better service by paying the same price as competitors but receiving a higher service quality (Buzzell & Gale, 1987).

2.9 Demographic Factors

Buyer decisions are heavily influenced by demographic factors (Kotler & Armstrong, 2012).

Age: Consumers purchase different goods and service over their life time, because peoples' needs and wants obviously change with their age (Kotler & Armstrong 2012).

Education levels: Education level is related to occupation and income. It also affects lifestyle and values, so it straightly gives an effect on customers' behavior (Hawkins, Best, & Coney, 1992).

Gender: Gender is always a critical variable. Customer's thinking, value, behavior, process decisions, etc. depends on their gender (Kotler, 2000).

Nationality: Tourists with a different nationality have different behaviors. The greatest differences proved to be when the most when they interact, socialize with other tourists and when they are taking picture (Pizam & Sussmann, 1995).

Occupation: It is also important because, by acknowledging it, marketing can help to help to forecast the customer spendable income, their lifestyle and values, etc. (Kotler & Armstrong 2012).

2.10 Previous Related Studies

Hudson S., Hudson P. & Miller (2004) did a research in tour operator in UK, to compare 3 methods SERVQUAL, SERVPERF, IPA, those are widely used in service quality evaluation. The research named “The Measurement of Service Quality in the Tour Operating Sector: A Methodological Comparison”

In 2004, Hudson et al. (2004) conducted a study in tour operator service in U.K to compare three methods of service quality evaluation, those are: SERVQUAL, SERVPERF, IPA. It was pointed out that, every method has its own strength and drawback. In details, IPA method is well-known as a simple and easy tool for service evaluation. However, the weak point was the measurement scale, which uses Likert scale. The scale itself is not able to clarify the details differences in levels of importance and performance. The positive side of SERVQUAL is the acknowledgement of customer expectation, and how their rate the performance according to their expectation. However, SERVQUAL also contains negative points as well. Cronin and Taylor (1994) have argued that the expectation rating part is unnecessary because while people evaluate the performance, they already compare mentally the perceptions and expectation. Other negative point of SERVQUAL is the number of dimensions. SERVQUAL was applied in many industries, and the five dimensions could not express the uniqueness of each industry. Follow Cronin and Taylor (1994) idea, Yuksel and Rimmington (1998) suggested that SERVPERF, which evaluate only performance, is the most reliable way to measure customer satisfaction. However, Tribble and Snaith (1997) said that performance alone could not give a full picture of customer satisfaction. Moreover, SERVPERF is regardless of customer expectation, so service firm could not indicate the attribute or dimension that they need to improve to fit with customer expectation and rise customer satisfaction.

In cooperation with major U.K. tour operators, the questionnaire survey was implemented in 2001. With 220 respondents, the results showed that there no significant differences in measurement perceive service quality among three method. The author suggests that service firm should choose the right method depend on their priority. If firm would like to investigate customer expectation and improve performance, SERVQUAL should be chosen. For service performance measurement only, firm should take SERVPERF instead. If the purpose of the firm is to find out what is the most important attribute that customer concern, and to evaluate how well firm performance accord to it, the IPA method is recommended.

In the research named “Customer satisfaction and Scuba-diving: Some insights from the deep”, O'Neill, MacCarthy, and Williams (2006) studied customers' satisfaction in diving tourism by qualitative research method.

O' Neill, Maccarthy, and Williams (2006) conducted a qualitative research in customer satisfaction in diving tourism, in order to explore the customer satisfaction theory in diving tourism. The technique used was an in-depth interview and participant observations. To avoid the limitations of qualitative method, researchers collected the data for thirty-six months period (from 2000 – 2003) in several places (southwest of Western Australia, Phuket of Thailand, Perth metropolitan of Australia, and Queensland of Australia). The research achieved two hundred respondents, which is a very big number, compared with the normal sample sizes of qualitative research. The main findings of the research was that the service quality was still considered an important key that create satisfied feeling for customer, but it is not the only one. The satisfaction may come from the dive itself: the water clarity, marine life, variety of coral structure, or relationship among diving friends. Interestingly, the observations showed that even though the technical quality is sometimes not given properly by

diver operator, but, the functional quality can overcome the situation and result the happy end.

Ince et al. (2010) performed another qualitative research, named “Consumer satisfaction and services: insights from dive tourism” to examine customers’ satisfaction in diving tourism.

In another qualitative study in diving tourism customer satisfaction, Ince and Bowen (2010) used face-to-face interviews and observations techniques. Researchers applied these techniques because they would like to understand what consumers think, act, and feel. It is essential to mention that in this study, researchers did an empirical study to collect all the themes and elements that compromise the customers’ satisfaction other than service quality that was found in the many previous studies such as: marine life, visibility, social aspects, buoyancy, on board services, sub-interests, safety and self-interests. During the diving tours, Ince and Bowen (2010) started with an observation for ten days at first and later did individual semi-structured interviews. The collected elements were employed to be a data set for interview with the sample of twenty five respondents. Compared to eighteen dive tour operators, number of interviewee is small. This is a drawback of this research; there are limited respondents, so it reduces the applicability level of the research results. The study again emphasized the complexity of factors that affects the customers’ satisfaction special interest tourism context. The outcome of this study, three most important factors (out of nine) that can influence divers’ satisfaction in places of Zanzibar (Tanzania) with marine life (variety of species), visibility (water cleanliness), and the social aspects (communications among divers) is listed.

In the research “Diving into service quality – the dive tour operator perspective”, O'Neill et al. (2000) desired to measure the service quality in diving tourism by quantitative research.

O'Neill, Williams, MacCarthy and Groves (2000) conducted a research of the service quality in diving tourism. This study aimed to underline the role of diving tourism in the total tourism industry and investigated the conceptualization of measurement of the service quality in diving tourism. In this research, they created a new quantitative method technique. The new model used Importance/Performance Paradigm (Martilla & James, 1977) with five dimensions (tangibles, responsiveness, assurance, empathy, reliability) and attributes in SERVQUAL model (Parasuraman, et al., 1988). The new model was used along with many qualitative research techniques (in depth interviews, non-participant and participant observations) to ensure the deep of this research. For the quantitative part, two hundred questionnaires were distributed, and 54% (108) of those responded. The respondent rate was quite low, because of the low season. Furthermore, this work also collected the demographic characteristics of the divers to create the diver profiles for supporting further study and management actions. After all, the major finding was that the diving tour operators in Western Australia performed quite well. The result showed that divers perceived a very good quality in their diving trips. Secondly, the pre-test showed the minimum of 0.92 reliability, which encouraged researchers to use their model for further researches.

O'Neill et al. (2002) continuously applied their method to measure service quality in diving tourism, in the research named “Dive Tourism: Evaluating Service Quality”, and established the standard by naming their method as DIVEPERF.

After the successful application, in 2002, O'Neill, MacCarthy, Abdullah again took the successfully applied method to measure quality of service provided by diving tour operator, and name it the DIVEPERF model, and studied the diving service quality provided by the tour operator in Western Australia. The test purpose was to help the dive tour operators there to understand their customers better, and improve their marketing plan. This study also proved that service quality is really needed for diving tourism and its role cannot be disregard by the analysts. At this time, a set of two hundred questionnaires were distributed to divers, and the returned rate was 81.5 % (one hundred-sixty three responses). The implication process also suggested a trick to improve the return rate, which was giving small complimentary gifts to respondents. The result of the test displayed clearly three objectives. First was what is the most important attribute or dimension in customer attention. Second pointed to how tour operators performed in respect to customers' importance concerns. Last, the objective was measuring the level of quality of provided services. In this case, divers' concern was on reliability, assurance, tangibles, and empathy to be followed respectfully. For the service performance, there is a requirement for improvement: the dive tour operators were underperforming in relation to assurance, empathy and reliability dimensions. The only one that was sufficiently performed was responsiveness dimension. Finally, the results underlined the rising of a group of divers that not only focused on the actual dive, but also cared about the total experience during the diving trip.

Lin (2009) used IPA, in the study named “Importance/ Performance Analysis of the Taipei Fine Arts Museum's services”, for analyzing Taipei fine museum art service. Researcher proves that IPA could be an effective tool for analyzing service quality.

Lin stated that for the good IPA test, vital factor and attribute must be intensively identified. Nineteen attributes were collected from previous study on museum; Li grouped it under 3 groups: Core Product, expected product, augmented product.

Lin found out that those previous studies just evaluated expectation and performance separately, so it occurs the limitation of examination the gap between expectation and performance in the way that visitor concern.

The questionnaire contained two parts, Importance and Performance, so it required to be distributed by two times before visiting for Importance part and after visiting for Performance part. Five Likert scale is set up from “very important” to “Very Unimportant” and “Very Satisfied” to “Very Unsatisfied”. Within five week period, they were able to collect 594 finished questionnaires.

Most of museums have very limited resources, so management board need to manage it carefully. IPA test show its usefulness in pointing how to put resources accurately. In this case, researcher show that the highest mean importance rating was for expected product (3.82), followed by core product (3.75) and augmented product (3.65). The ratings for performance attributes follow the same pattern. When visitors were asked to evaluate the performance attributes they placed expected product highest (3.80), followed by core product (3.68) and augmented product (3.50); so the museum should invest more to achieve the right satisfaction level that perceive by visitor, especially for augmented product and core product. The research also realized

a very interesting fact, acting upon previous audience research; museums have dedicated much energy and resources to providing facilities, such as workshops and multimedia. When asked for suggestions on how museums might improve, the answers given by audiences have essentially been 'We would like more, please'. The findings here indicate that managers have, in fact, been misdirecting their efforts to the wrong services. Researchers had believed that more and improved support services would please visitors but, in fact, visitors do not rate these as important. The research suggests that the audience is concerned primarily with seeing better exhibitions. Thus, Lin (2009) argue that museums should focus upon their core product or the experience of art and learning.

Most museum management board believed that improving supporting service such as: workshop, multimedia is the best way to gain visitor. However, visitor did not rate these as important, visitor would focus more on experience of art and learning.

It could be seen clearly that IPA, in this case, is very effective in assisting management board to arrange their resources for better service quality in museum services.

In the study "An empirical study of China's Macao special administrative region", Linda and To (2010) prove that Importance/Performance Analysis is an effective technique to help exhibitor organizer in Taiwan in convention decision maker.

The study of Linda and To (2010) was about decision making for convention organizer. The study aims to test the effectiveness of IPA tools in analyzing the situation for making exhibition, what is the importance factor that concern by attendees and delegate, and customer evaluate exhibition organizers.

According to the process of IPA, which created by Martilla and James in 1977. They firstly reviewed the previous study of Crouch and Ritchie (1997), which provided twenty nine attributes, and spear in eight factors that effect to decision making process of exhibition organizer, those are: accessibility, local support, extra-conference opportunities, accommodation facilities, meeting facilities, information, and site environment, among others. Lai and To, after that, set up the questionnaire with 29 collected attributes, and applied the 5 point Likert scale from very unimportant to very important, very unsatisfied to very satisfied.

The target group was exhibitors and delegates who have experienced and used Macao convention facilities over the past two years. Within 3 days of “Asian Attractions Expo Mega Convention”, the selected group contains 160 exhibitor and 3000 delegates. Questionnaire was distributed to 500 people, and there were 177 respondents, 113 questionnaires came from convention delegates and 64 from exhibitors. In the analyzing process, the chosen statistical tool is descriptive statistics. The result showed that even though IPA is a simple tool, but in this case it was an effective tool for convention decision making. Technically, from convention attendees’ side, six categories were found as competitiveness of Macao SAR, such as: Professional convention services, Extra-convention opportunities, Convention supporting services, Accommodation, Cost, and Image. On the other hand, from the delegates’ perspective, the research showed that: Professional convention services and Cost needed the most improvement. “Convention supporting services” and “Accommodations” are areas of strength and “Extra-convention opportunities” and “Image” are low priority attributes. This is very useful study for exhibition organizer to allocated and resources and making better decision in arrange exhibition.

Lin & McDowall (2012) applied IPA technique to evaluate Bangkok as a city tourist destination from tourist perspective. The research named “Importance/Performance Analysis of Bangkok as a City Tourist Destination”

In 2012, Lin and McDowall, after realizing the limitation of Bangkok study as a tourist destination, conduct a study to identify importance attributes of Bangkok tourists, and compare the city tourism performance according to tourist concern.

The literature review pointed out that for the large destination like Bangkok; several people both domestic and international visit every day with different reason. However, they have some points in common; those are the attributes that they saw as important for a tourist destination. At the same time, the performance of the city tourism to those attributes needed to be evaluated as well. One of the advantages of IPA technique is the ability to indicate which attributes is well-performed, and those should be improve, so this study would also assist the city management board to put their limited resources on the right place.

The 24 attributes and factors were collected from previous study. To achievement collecting 510 respondents, the researcher, who is instructor, need help from fifty students to distribute the questionnaire at major destinations in Bangkok, using a convenient sample method. Fortunately, half of the respondent is Thai and another half is international tourist, so the view would be more objective.

The results of this research focus more on the factor rather than each attributes. In details, “safe and security”, “Entertainment” were on the low priority area, which means those two factor have low importance and low performance as well. Other two, “value & hospitality” and “quality & convenience”, had high importance and high performance.

The critical limitation of this study was the conducting time. The questionnaire distribution time was only in summer 2008; it could not cover every type of tourist, who arrives to Bangkok in whole year round.

Chu and Choi (1999) conducted an Importance/Performance Analysis research, named “An Importance/Performance Analysis of hotel selection factors in the Hong Kong hotel industry: a comparison of business and leisure travelers”, for pointing out the strength and weakness of Hong Kong accommodation industry.

Hong Kong has been a famous destination for tourists around the world. However, it had to face with several competitors in Southeast Asian, which were perceived as less expensive destinations. The problem seemed to be more serious, when the living cost and accommodation price kept rising steadily, made the hotel price even more expensive than Tokyo, where was considered as the most expensive city in the world. The issue must be solved, especially when statistical evidence showed that almost 90% of Hong Kong visitor arrive with purpose of business or leisure.

The price could not be decreased easily because it depends on many factors, so Chu and Choi decided to study what is the strength and weakness of Hong Kong accommodation service. After that, they could promote the strength and improve the weakness, to gain premium service with high price.

Sethna (1982) said that IPA is a valid and useful technique for identifying the area that needs a remedial action, like Hong Kong, in this case. After studying previous researches, researchers took six factors: Service Quality, Business Facilities, Value, Room and Front Desk, Food and Recreation, and Security; with 26 attributes. The questionnaire use 7 points Likert scale arrange from least important (1) to most important (7); and in performance part is from strongly disagree (1) to strongly agree

(7). Sixty travelers from many countries were conducted at the airport every day, for nine day, so the total respondent is 540 travelers.

The result showed no significant different between business and leisure groups in perceive six factors. In details, “Value” factor was in the concentrate here quadrant. “Keep up the good work” quadrant contained: “service quality”, “room and front desk” and “security”. Finally, “business Facilities”, “Food and Recreation” were in the “low priority” quadrant. There was no factor in quadrant “possible over kill”. However, for choosing hotel, business travelers considered “room and front desk” to be the most important. On the other hand, leisure concern “security” was the most important to them.



Table 2.6 Summary of Related Studies

<i>Author & year Name of study</i>	<i>Purposes</i>	<i>Methods</i>	<i>Sample/ Respondents</i>	<i>Findings</i>
O'Neill, Williams, MacCarthy, Groves (2000) Diving into service quality – the dive tour operator perspective	Investigate the conceptualization and measurement of the service quality and its importance to the dive tourism industry. Report the discovery from a recently conducted exploratory study of dive tourist's perception of service quality as it relates to the scuba diving experience in Western Australia.	Exploratory research - Qualitative: In-depth one to one interviews, supplemented by participant and non-participant observations. - Quantitative: Questionnaire survey using new model based on importance/performance paradigm, attributes from SERVQUAL model with 5 dimensions, 27 items self-completion questionnaire.	200 set of questionnaire was distributed, and 54% (108) of that is responded	- Lack of diving service quality research. - Importance/performance instrument identifies what important to customer, and more responsive for buyer retention; after that help the diving operator to monitor their performance to match with it. - In bigger picture, the new model built up material for building strategic, marketing plan, and evaluation for diving operator.

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Table 2.6 Summary of Related Studies (continued)

<p>Martin Maccarthy, Martin O'Neill, Paul Williams 2006</p> <p>Customer satisfaction and Scuba-diving: Some insights from the deep</p>	<p>Provide the information on the nature and growth of scuba-diving consumption</p> <p>Pointed out the problem of satisfaction in scuba-diving, Research by another alternative options rather than quantitative in customer</p>	<p>Quantitative research, - In deep interview. Participated observations</p>	<p>Interview had 200 respondents in 4 places in the period of 36 months.</p>	<p>- Emphasize the role of service quality on customer satisfaction. However, it is not the only point. The satisfaction may come from the dive itself: Water clarity, marine life, variety of coral structure, relationship among diving buddies.</p> <p>- Even though the technical quality is sometimes not given properly, but the functional quality can overcome the situation and result in happy end.</p>
<p>Lai & W.M.To 2010</p> <p>An empirical study of China's Macao special administrative region</p>	<p>Explore the use of Importance- Performance Analysis as an evaluative technique for public management decision making</p>	<p>Quantitative research, using IPA. 29 attributes collected from literature review and attend conference.</p>	<p>Target group is 160 exhibitors and 3000 delegates. Valid respondents are 113 delegates and 64 exhibitor</p>	<p>IPA is an effective method and can be used as decision making tool</p> <p>- In this case, IPA shows its effectiveness in evaluating technique for public management decision making.</p>

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Table 2.6 Summary of Related Studies (continued)

<p>Martin O'Neill, Martin MacCarthy, Paul Abdullah 2002 Dive Tourism: Evaluating Service Quality</p>	<p>Measure the service quality for tour operator in diving industry.</p>	<p>importance- performance analysis for dive tour operator</p>	<p>200 set of questionnaire were distributed to divers, and the returned rate was 81.5 % (163 sets)</p>	<ul style="list-style-type: none"> - Name IPA successfully applied method as DIVEPERF. - IPA helps to identify the importance attributes recognize by diver, and dive tour operator can perform in relation of satisfying customer. - Technical aspect is more important than personal aspect.
<p>Lin 2009 Importance/ Performance Analysis of the Taipei Fine Arts Museum's services</p>	<p>Evaluate visitor expectations and perceived service at the Taipei Fine Arts Museum</p>	<p>Importance/ Performance Analysis 19 Attributes collect from previous study 5 point Likert scale form “very important” to “not at all important”, “very satisfied” to “very unsatisfied”.</p>	<p>594 museum visitor Distribute by 3 people at the gate of the museum.</p>	<ul style="list-style-type: none"> - Unlike previous study, those concluded that workshops, multimedia, attractive shopping facilities and better catering would encourage more visitor and non-visitor to visit museums. However, this study showed that these attributes were all rated by visitor as being of low importance. The most importance concern by visitor was better-quality exhibitions.

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Table 2.6 Summary of Related Studies (continued)

Ince & Bowen (2007) Consumer satisfaction and services: insights from dive tourism	Study the factor that create the customer satisfaction in diving tourism, focus in ranking the elements that bring out the most satisfaction.	Qualitative research with combination of techniques: - Empirical study from previous research - Observations - Interview with semi- structure	Observation for 10 day, in 18 dive tour operator, and did a semi- structure with 25 interviewees	<ul style="list-style-type: none"> - Collect a number of factors and elements that create customer satisfaction. - The elements in experiential factor that bring out the most satisfaction are marine life (variety of species), visibility (water cleanliness), and social aspect (communication among divers).
Chu & Choi (1999) An Importance/ Performance Analysis of hotel selection factors in the Hong Kong hotel industry: a comparison of business and leisure travelers.	Examine business and leisure traveler perceived importance and performance of six hotel selection factors in the Hong Kong Hotel industry.	Quantitative research. Using IPA technique. Attributes are collected by previous qualitative and quantitative research 7 point Likert scale, from least importance to most importance, and least satisfied to most satisfied.	Distributes Questionnaire in the airport for nine days with total 540 sets.	<ul style="list-style-type: none"> - There is no significant difference in perception of six assessed factors between business and leisure traveler - However, in choosing hotel. business concern most about “room and front desk, whereas leisure concern most about “security”

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Table 2.6 Summary of Related Studies (continued)

Hudson S., Paul Hudson P.& Miller 2004 The Measurement of Service Quality in the Tour Operating Sector: A Methodological Comparison	Comparing three techniques IPA, SERVQUAL, SERVPERF for measuring service quality in the area of tour operator	IPA SERVQUAL SERVPERF Together	In corporation with Major UK tour operator, 220 respondents	The study found out that testing with three different techniques: IPA, SERVQUAL, SERVPERF doesn't provide any statistical difference result.
Lin & McDowall 2012 Importance/perfo rmance Analysis of Bangkok as a City Tourist Destination	Apply IPA technique to evaluate Bangkok as a city tourist destination from tourist perspective.	Importance/ Performance Analysis Attribute is collect after their opened- end interview, news, and literature review. It contains 4 factors and 21 attributes	Questionnaire is distributed in one month (may 2008) with help of 10 trained distributors. acquire 510 respondents, 256 domestics tourist and 254 foreigners	Pointing the factor rather than attributes: <ul style="list-style-type: none"> • Low priority: "safety and security"; "Entertainment". • Keep up the good work: "Value & hospitality", "Quality & Convenience" Research time limitation should be prevented.

2.10.1 Analytical Review of Literature

Customer satisfaction in diving tourism has been studied mostly by the qualitative research method. Researchers (Ince & Bowen, 2007; Macarthy et al.,

2002) desired to acknowledge how customer satisfaction fit in this niche of tourism. They discovered that there are many factors and elements which can affect to customer satisfaction such as emotional factors, experiential factors, and personal factors.

However, the service quality has proved its own importance for service firms (Baker & Crompton, 2000; Cronin & Taylor, 1992; Kandampully & Hu, 2009; Parasuraman et al., 1985; Yap & Kew, 2007). It was the root of competitive advantage and sustainable business (Kolter & Armstrong, 2012; Buzzell & Gale, 1987), so likewise the diving tourism industry also needs to be studied in the service quality area. Unfortunately, there have been lack of studies in the service quality on diving tourism.

Importance/Performance Analysis is a simple and easy tool created by Martilla and James (1977). Due to its usefulness, it has been commonly used in evaluation service quality for many industries such as: tourist destination planning (L.-C. Lin & McDowall, 2012), museum tourism (Y.-N. Lin, 2009), MICE tourism (Linda & To, 2010), tour operator (Hudson et al., 2004), diving tourism (O'Neill et al., 2000), hotel industry (Chu et al., 1999).

In Importance/Performance Analysis, many types of scale were applied. However, the main purpose of the test is to put each attributes into the axis of grid, by identifying the crossed point of importance mean and performance mean. By that way, the final result was still able to maintain its effectiveness.

O'Neill et al., (2002) successfully applied the IPA technique in measure service quality of diving tourism in Australia. The new model proved its effectiveness, but it is still not yet widely applied.

CHAPTER 3

CONCEPTUAL FRAMEWORK

This chapter consists of four sections; these are the theoretical framework, the conceptual framework, research hypothesis, and operationalization of independent and dependent variables.

The purpose of this study is to research the service quality which is performed by dive tour operators in Nha Trang based on customers' (divers) importance attributes. According to the literature review of previous chapter, this researcher would like to choose the DIVEPERF model which was developed by O'Neill, MacCarthy and Abdullah (2000). At the center of this debate is the relationship between two theoretical models related to the measurement of the service quality. The first conceptual model is SERVQUAL model, its attributes and dimensions which are found in the service quality research by Parasuraman *et al.*, (1988). The second model is called the Importance/Performance paradigm (Martilla & James, 1977), with the analyzing method being employed.

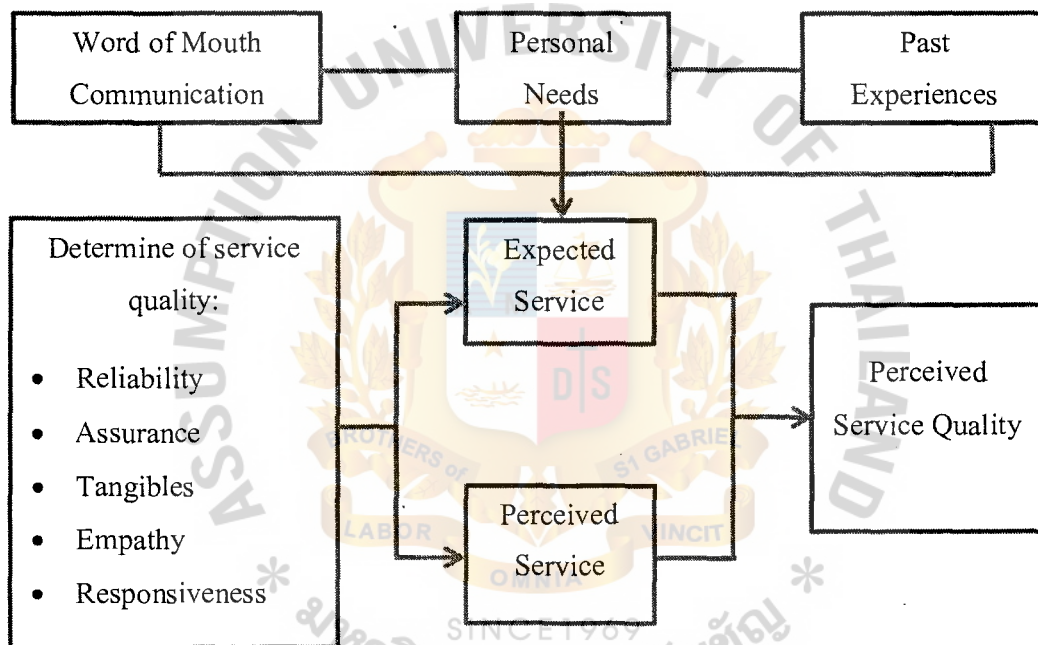
3.1 Theoretical Frameworks

This research examined the difference between the diver importance attributes and diver evaluations respective to the performance of dive tour operators in Nha Trang. For this purpose, this researcher used the SERVQUAL model (Parasuraman *et al.*, 1988) for evaluating the attributes. The model (Figure 3.1) is based on five dimensions and its attributes:

1. Tangibles: Physical facilities, equipment, appearance of personnel, and communications material.

2. Reliability: Ability to perform the promised service dependably and accurately.
3. Responsiveness: Willingness to help the promised service dependably.
4. Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence
5. Empathy: the caring, individualized attention the firm provides its customers

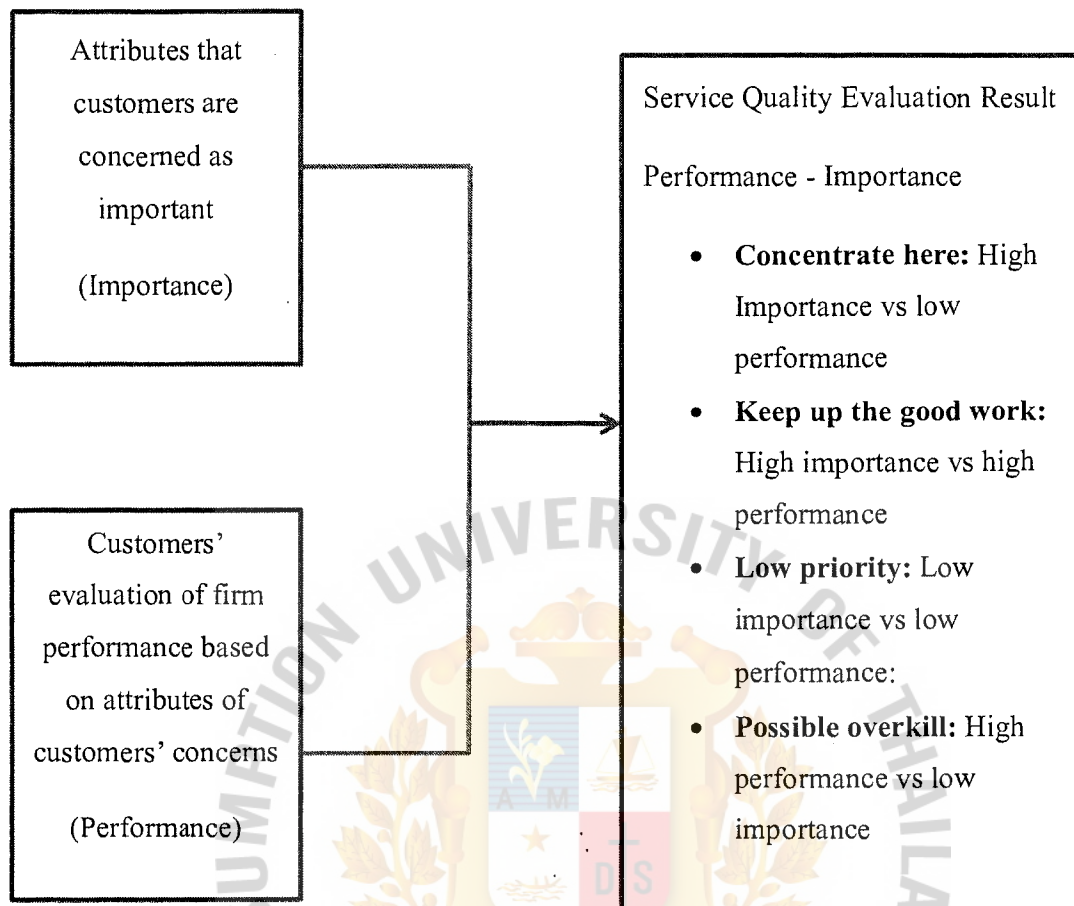
Figure 3.1 SERVQUAL (Service Quality) Model



Source: Parasuraman et al., (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, 64(1), 12-37.

The second applied theory was Importance/Performance paradigm (Martilla & James, 1977). In their work, they created the model (Figure 3.2) based on the evaluation of the collected attributes, and an easy understood presentation of how well the firm performed.

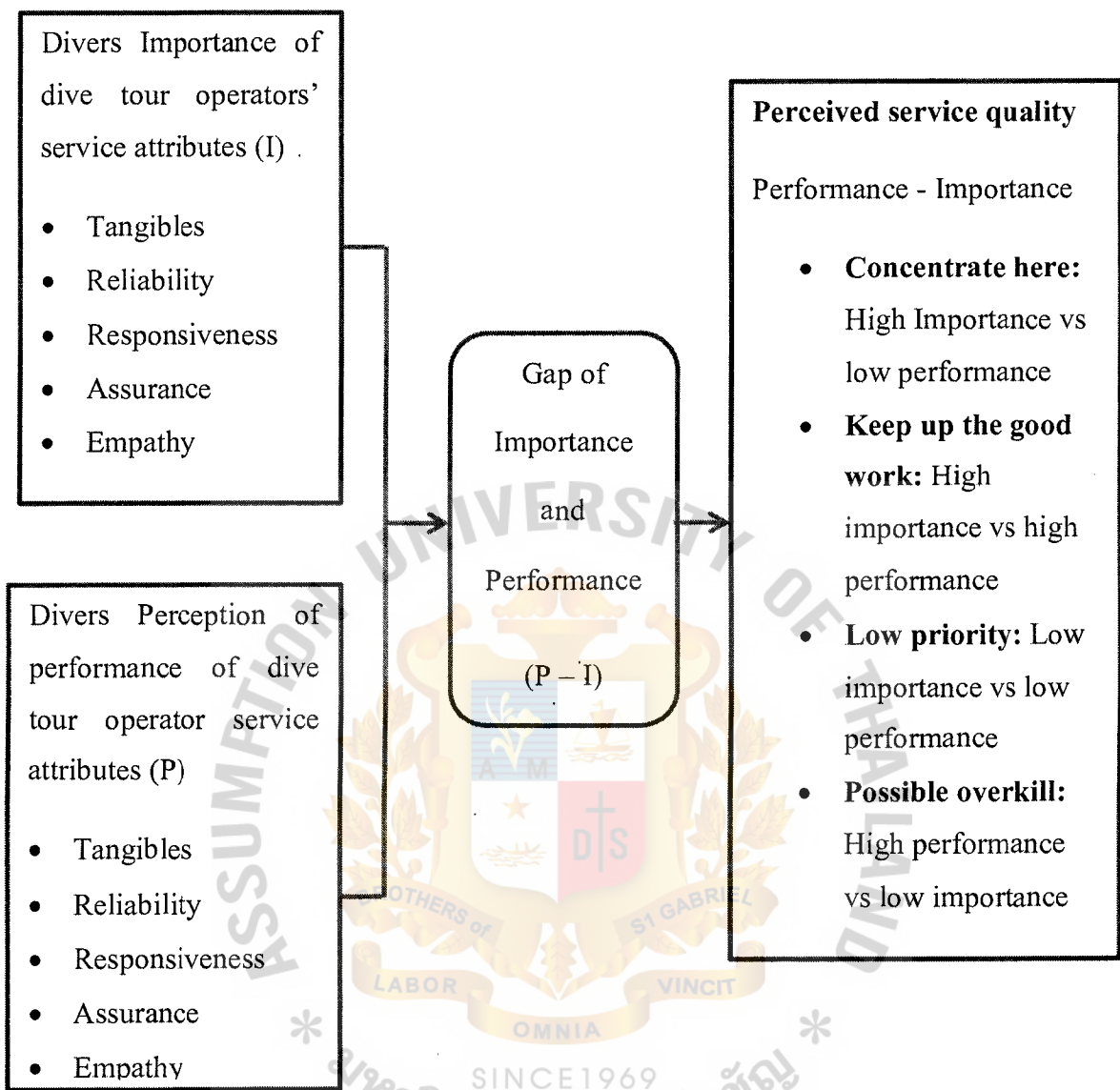
Figure 3.2 Importance/Performance Analyses



Source: Martilla et al., (1977). Importance-performance analysis. *Journal of Marketing* (pre-1986), 41(000001), 77.

The third theory would be applied is DIVEPERF model. O'Neill et al., (2000) developed a model (Figure 3.3) to measure the service quality in diving tourism. After they successful applied it for a second time in another study, namely (O'Neill et al., 2002), the model was named DIVEPERF. The DIVEPERF model was developed by using the Importance/Performance Analysis Paradigm, and using the attributes from the SERQUAL model (Parasuraman et al., 1988).

Figure 3.3 DIVEPERF Model



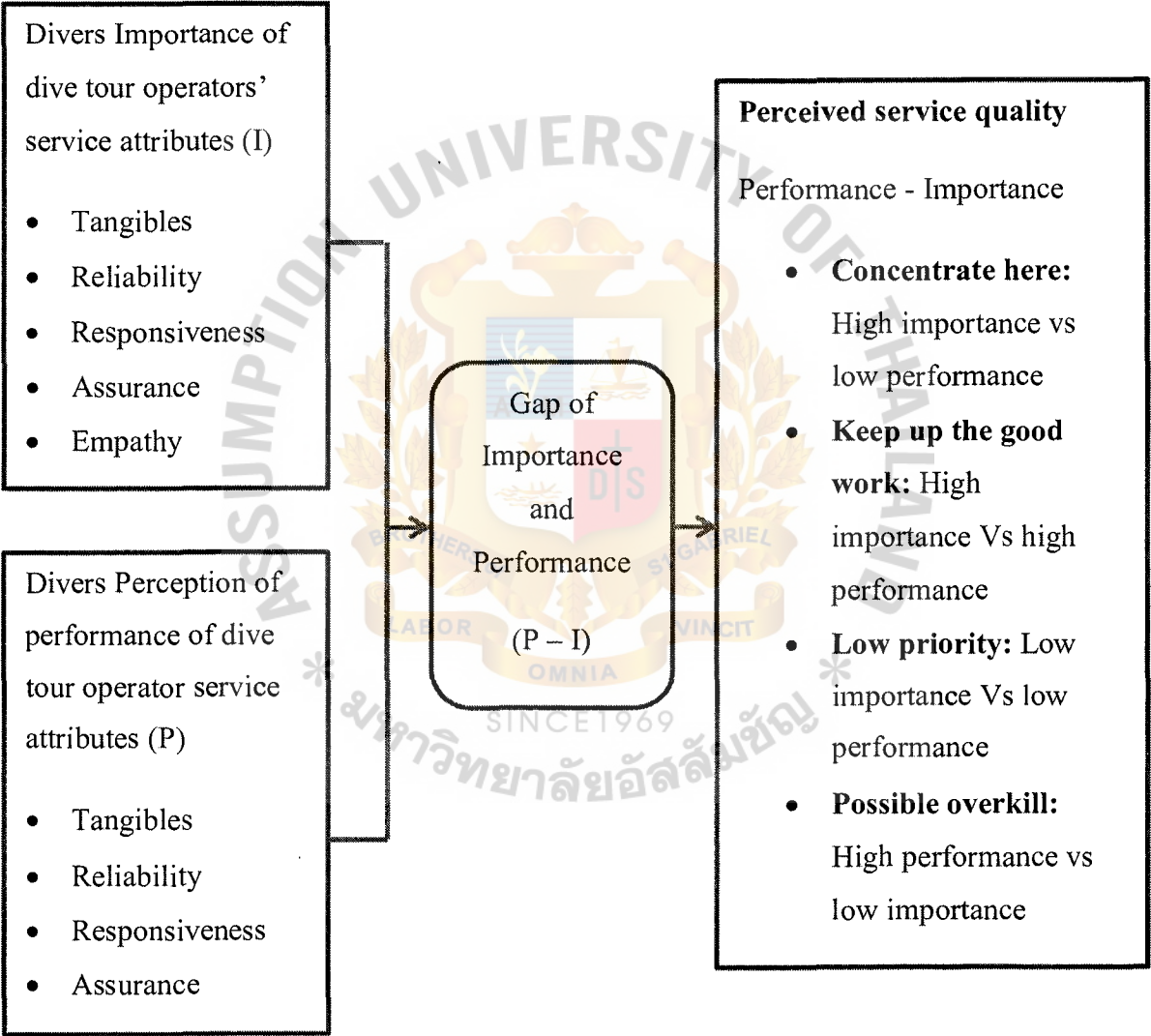
Sources: O'Neill et al., (2002). Dive tourism: evaluating service quality. *Hospitality Review*, 20(2).

3.2 Conceptual Framework

The conceptual framework has been modeled after revision of three different models: the SERVQUAL Model (Parasuraman et al., 1988), the Importance/Performance paradigm (Martilla & James, 1977), and the DIVEPERF Model (O'Neil et al., 2002). This researcher decided to take the five dimensions used by the SERVQUAL model (Tangible, Responsiveness, Reliability, Empathy,

Assurance) (Parasuraman et al., 1988) in order to build conceptual framework. This also included the Importance/Performance Paradigm (Martilla & James 1977). This paradigm helped to provide the analyzing techniques for the five chosen dimensions in SERVQUAL Model. The results of the implementation DIVEPERF Model study (O’Neil et al., 2002) will be applied as well to the conceptual framework.

Figure 3.4 Conceptual Framework



Sources: O'Neill et al., (2002). Dive tourism: evaluating service quality. *Hospitality Review*, 20(2).

3.3 Research Hypotheses

Malhotra (2007) stated that a hypothesis is created to provide the guidelines on what, and how, data are collected and analyzed. Since the purpose of this study is to assess the importance that divers concern while participating diving tour and, their evaluation on diving tour operator. The hypotheses will be used to measure the service quality on each attributes and on five dimensions: tangibles, reliability, responsiveness, assurance and empathy. The following hypotheses are listed below:

Hypothesis 1:

Ho: There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of tangibles.

Ha: There is a significant difference between divers' importance and diver perceptions' about dive tour performance in terms of tangibles.

Hypothesis 2:

Ho: There is no significant difference between divers' importance and divers' perception about dive tour performance in terms of reliability.

Ha: There is a significant difference between divers' importance and divers' perception about dive tour performance in terms of reliability.

Hypothesis 3:

Ho: There is no significant difference between divers' importance and divers' perception about dive tour performance in terms of responsiveness.

Ha: There is a significant difference between divers' importance and divers' perception about dive tour performance in terms of responsiveness.

Hypothesis 4:

Ho: There is no significant difference between divers' importance and divers' perception about dive tour performance in terms of assurance.

Ha: There is a significant difference between divers' importance and divers' perception about dive tour performance in terms of assurance.

Hypothesis 5:

Ho: There is no significant difference between divers' importance and divers' perception about dive tour performance in terms of empathy.

Ha: There is a significant difference between divers' importance and divers' perception about dive tour performance in terms of empathy.



3.4 Operational Components of Variables

Table 3.1 Operational Component of Importance Variables

Concept	Conceptual Definition	Operation components	Level of measurement	Questions in the questionnaire
<i>Tangibles</i>	Appearance of physical facilities, equipment, personnel, and communication materials (Parasuraman et al., 1988)	<p>The dive tour operator should have:</p> <ul style="list-style-type: none"> - Visually appealing appearance/ décor of the company's premises - Visually appealing company's brochures - Highly suitable for diving vessel - Neat appearance staff - Good facilities/ and equipment to cater for diver 	Interval scale	Part I: Q 1 - 5
<i>Responsiveness</i>	Willing to help customer and provide the prompt service (Parasuraman et al., 1988)	<p>The dive tour operator should:</p> <ul style="list-style-type: none"> - Provide prompt services - Be never too busy to respond - Be always willing to help divers 	Interval scale	Part I: Q 6 - 8

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Table 3.1 Operational Component of Importance Variables (continued)

<i>Assurance</i>	Knowledge and courtesy of employees and their ability to convey trust and confidence (Parasuraman <i>et al.</i> ,1988)	<p>The dive tour operator should:</p> <ul style="list-style-type: none"> - Consider divers best interests at heart - Kept customer informed - Make divers feel secure - Have no compromise on safety - Knowledgeable staff - Behavior of staff gave confidence to diver - Staff consistently courteous 	Interval scale	Part I: Q 9 - 15
<i>Reliability</i>	Ability to perform the promised service dependably and accurate (Parasuraman <i>et al.</i> , 1988)	<p>The dive tour operator should:</p> <ul style="list-style-type: none"> - Get thing right at the first time - Delivery service to divers on time - Interest in solving divers problems 	Interval scale	Part I, Q 16 - 18

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Table 3.1 Operational Component of Importance Variables (continued)

<i>Empathy</i>	Provision of caring individualized attention, which the firm provides its customers. (Parasuraman et al., 1988)	<p>The dive tour operator should:</p> <ul style="list-style-type: none"> - Make divers feel more convenient than on own - Understand the specific needs of divers - Treat divers like special individuals - give an individualized attention to divers - Give no excessive waiting time for diver - Attend to diver's needs promptly - Make the dive more enjoyable 	Interval	Part I, Q 19 - 25
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Source: developed by researcher for this study

Table 3.2 Operational Component of Performance Variables

Concept	Conceptual Definition	Operation components	Level of measurement	Questions in the questionnaire
<i>Tangibles</i>	Appearance of physical facilities, equipment, Personnel, and communication materials (Parasuraman et al., 1988)	<p>The dive tour operator have:</p> <ul style="list-style-type: none"> - Visually appealing appearance/décor of the company's premises - Visually appealing company's brochures - Highly suitable for diving vessel - Neat appearance of staff - Good facilities/ and equipment to cater for diver 	Interval	Part II, Q 26 - 30
<i>Responsiveness</i>	Willing to help customers and provide prompt service (Parasuraman et al., 1988)	<p>The dive tour operator:</p> <ul style="list-style-type: none"> - Provide prompt services - Be never too busy to respond - Be always willing to help divers 	Interval	Part II, Q 31 - 33

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Table 3.2 Operational Component of Performance Variables (continued)

<i>Assurance</i>	Knowledge and courtesy of employees and their ability to convey trust and confidence (Parasuraman <i>et al.</i> , 1988)	<p>The dive tour operator:</p> <ul style="list-style-type: none"> - Consider divers best interests at heart - Kept customer informed - Make divers feel secure - Have no compromise on safety - Have knowledgeable staff - Get staff's behavior gave confidence to diver - Staff consistently courteous 	Interval scale	Part II: Q 34 - 40
<i>Reliability</i>	Ability to perform the promised service dependably and accurate (Parasuraman <i>et al.</i> , 1988)	<p>The excellent dive tour operator:</p> <ul style="list-style-type: none"> - Get thing right at the first time - Delivery service to divers on time - Interest in solving divers problems 	Interval scale	Part II: Q 41 - 43

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Table 3.2 Operational Component of Performance Variables (continued)

<i>Emphy</i>	Provision of caring individualized attention, which the firm provides its customers. (Parasuraman et al., 1988)	<p>The dive tour operator:</p> <ul style="list-style-type: none"> - Make divers feel more convenient than on own - Understand the specific needs of divers - Treat divers like special individuals - give an individualized attention to divers - Give no excessive waiting time for diver - Attend to diver's needs promptly - Make the dive more enjoyable 	Interval	Part II, Q 44 - 50
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Source: developed by researcher for this study

CHAPTER 4

RESEARCH METHODOLOGY

The method used to analyze the data collected helped to answer the research questions, after that, this researcher can complete the first objective of this study. The first section in this part focuses on the research methodology used, and the second one explains the respondents and sample procedures. Thirdly, the research instruments and questionnaires are provided. After that, the fourth section discusses the data collection procedures. The last component demonstrates the statistical data treatment.

4.1 The Research Method

In this descriptive study, the DIVEPERF model developed by O'Neill et al., (2000) was used. The purpose was to measure the service quality by gathering information from a sample of divers who participated in Nha Trang Bay MPA. The chosen respondents were divers whose dive trip was organized by registered dive tour operator for one day trip.

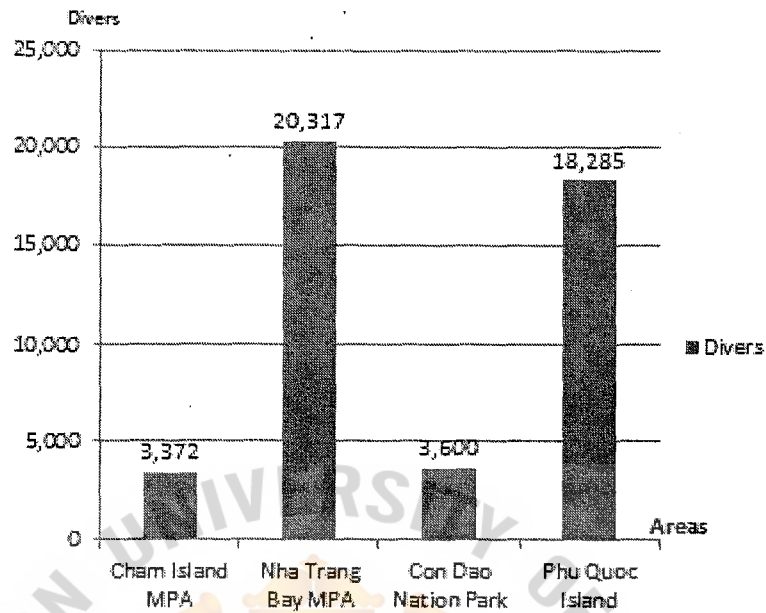
4.2 Respondent and Sampling Procedures

The research target respondents were divers who participated for one day diving tour in the Nha Trang Bay MPA.

4.2.1 Sample Size

The study of Nguyen and Thai (2013) showed that there are more than twenty thousand divers who participated in the Nha Trang Bay MPA in 2013.

Figure 4.1 Numbers of Divers in Viet Nam



Total number of tourism SCUBA divers (trial and fun diving) of the 4 main diving areas in Vietnam: about 45,574 persons/year

Sources: Nguyen *et al.*, (2013). Viet Nam– Diving Tourism Industry Characteristics: Current Policies and Regulatory Framework; Threats and Opportunities. Philippines: United Nations Environmental Programme.

Due to the difficulty of reaching all 20,317 divers (shown in Figure 4.1), with the limited time and limited budget, this researcher decided to set a collection of divers as a sample size for this study. Malhotra (2007) defined “Sample size as the number of correspondents or cases designated by the estimation of a population variance and the specification of level of acceptable error and degree of the confidence level”. Zikmund (2013) provided the formula to appropriately calculate the sample size with a 95% confidence level and a tolerable error of ± 5 for unknown population.

Formula:

Equation 1:

$$n = \frac{p q Z^2}{e^2}$$

Equation 2:

$$n = \frac{p(1-p)Z^2}{e^2}$$

Where

n = total sample size

Z = value of confidence level in a standard error unit = 95% (Z = 1.96)

p = the expected proportion that will be a success, suggested p = 0.5

q = (1-p)

e = the acceptable error or maximum error that allow the sample proportion to reach its true proportion, suggested e = 0.05 or 5%.

Equation 3:

$$n = \frac{(0.05)(1-0.5).1.96^2}{0.05^2}$$

SINCE 1969
~ 385 samples

According to the guideline of previous research, this researcher managed to achieve the sample size of three hundred-eighty-five respondents from the population of 20,317 divers in the Nha Trang Bay MPA. With this sample size, the study will be successful to reach the confidence level of 95% with a tolerable error of ± 5 .

4.2.2 Sampling Procedure

The judgment sampling (purposive sampling) method was applied for this study. This is a non-random way of selection, based on a particular characteristic of the respondents. In this case, the respondents were participators in the diving trips, which were operated by the selected diving tour. According to Zikmund (2013), this method is advantageous if researcher aims to study a sample group from a larger population in which many members of the group are easily identified, but getting the whole population involved, would be impossible.

Divers were asked to complete the first part of the 25 items questionnaire prior to experiencing dive operators' offer that include dive sites, equipment and briefings. The respondents were requested to evaluate the level of importance of each service quality dimension. Later the same respondent was requested to complete similar 25 items questionnaire (with identical attributes and items but measured on different scales) prior to leaving dive tour operator's premises. The perception levels of the service quality dimensions were measured on a five point Likert scale between not at all Important and very Important (part I), not at all satisfied and very satisfied (part II).

4.3 Research Instrument/Questionnaire

The questionnaire contains four parts: diver's importance (diver's opinion about important attributes in service quality), tour operator's performance (diver's perception about tour operator performance), demographics, and diver's experience.

Table 4.1 Arrangement of Questionnaire

Part	Variables	Question number	Measurement
I	Diver's importance of diving tour	1 – 25	Interval
II	Tour operator's performance	26 – 50	Interval
III	Demographic questions	51 – 55	
IV	Diving's experience questions	56 – 60	

This study employed the DIVPERF instrument (O'Neill et al., 2000) to measure service quality of dive tour operators adjudged by divers who participated in the diving activities in the Nha Trang Bay MPA. The DIVPERF model consists of five dimensions of service quality (tangibles, responsiveness, reliability, assurance and empathy). It measures the service quality by finding the difference between a diver's importance and their evaluating respective to the dive tour operator.

The questionnaire was divided in two sets of questions in order to gather information from respondents. The first section had to be completed before the diving experience, divers needed to rate the provided attributes based on their opinion about the importance level. After going through the dive trip, divers had to complete the second section, where they were asked to evaluate dive tour operator's performance based on the same attributes as the first section (before the dive).

In this study, the researcher managed to distribute the first set (before the dive), and requested the respondents to finish the first part on the way to the port. Twenty-five statements about the importance had to rate in this section with the five-point Likert scale ranging from not at all important to very important.

1 = Not at all important

2 = Somewhat not important

3 = Neither

4 = Somewhat Important

5 = Very Important

The second set (after the dive section) was distributed on the way back, when most of the service are provided and divers obtained diving experience. In this section divers would evaluate the dive tour operator's performance based on the same attributes as the first section. The five-point Likert scale was applied ranging from not at all satisfied to very satisfied.

1 = Not at all satisfied

2 = Somewhat not satisfied

3 = Neither satisfied nor dissatisfied

4 = Somewhat satisfied

5 = Very satisfied

A five point Likert scale is used in this study. It is often used to measure respondents' attitudes by asking the extent to which they rate not at all important or very important; and in second part, not satisfied or satisfied, with a particular question or statement. The mid-point on Likert scale in this study refers to neither important nor not important; and neutral means neither not satisfied nor satisfied. This option can avoid forcing respondents to choose not important or important; and unsatisfied

or satisfied, that will evoke misleading conclusion (i.e. forced choice), if they really hold neutral options towards the items. Moreover, the balance side point options (e.g. the point 2 and 4 of a 4-point Likert scale) are labeled as ‘somewhat not important/important’; ‘somewhat not satisfied/satisfied’ the adverb (somewhat) tends to reduce the number of mid-point selections. Finally to avoid any confusion on whether the questions are interpreted in the same way for respondents, a pre-test that offers feedback was performed to check accuracy of the data collected.

The questionnaire contributions had to be separated in two sections, before and after the service. The separation helped to minimize compounding and other effects, because it makes the respondent moves in a natural progression from general to more specific questions with a distinct separation between the ratings for each attribute.

4.3.1 Languages

The research survey was conducted in three languages: English as standard common language; Vietnamese as a local language; and Russian, due to the high percentage of these speakers. Since 2009, the Nha Trang Governor had opened new charter international flights to Ukraine, Russia, Korea and China. The most significant rising number is Russian tourists, growing from 11,364 people, and share 6.7% of total international tourists in 2009, to 148,932 people, making a 19.35% share in 2013. They become the biggest portion in Nha Trang tourism. Particularly, the report, provided by the Russian Tourism Department in IBT – Berlin trade show in 2006, showed that Russian tourists love travel to costal destinations and participate in marine tourism activities. Moreover, during a volunteer time for environmental diving projects, the researcher gained an experience from dive operators and other teammates

about the Russian guests in Nha Trang. Most of them do not speak English quite well, so if anybody wants to interact with them, they need to speak Russian.

4.4 Collection of Data/ Gathering Procedures

Data were collected by distribution of questionnaires to divers who participated in their diving activity for one day trip offered by selected professional diving tour operators. Ten out of thirteen registered diving tour operators was chosen base on mutual intention of service quality evaluation. They were Vietnam Explorer Center, Rainbow Divers, Ocean 5, Scuba Dive Vietnam, Amigos Divers, Sailing Club Divers, Turtle Dive Center, Coco Dive Center, Fun Divers, and Scuba Zone. As mentioned in the scope of study, there are a number of divers whose diving activity is just a part of day bay trip. They do not fully participate for a whole day diving trip, so they would not be qualified to do the questionnaire, because they were not able to experience all dimensions of diving service, provided by diving tour operators. Therefore they were unable to evaluate the service quality from the supply side.

In November and December 2014, researcher managed to take a diving trip together with divers from selected dive tour operators and helped them to serve the guests in exchange for the permission to distribute the questionnaire. Respondents, or diving guests, were asked to fill out the self-administered questionnaires.

4.5 Pre-Testing

Pre-testing is the evaluation of the questionnaire on a small sample of respondents, and was performed in order to figure out any potential mistakes and problems. Zikmund (2013) suggested that the size of pre-test samples should be 25 – 50 respondents. In September 2014, forty questionnaires were distributed in Nha

Trang Bay with the help of the researcher’s friends and family to check out the wording, and structuring of the questionnaire.

The researcher used the Cronbach coefficient Alpha scales in the SPSS program (version 19) for analyzing the pre-test. The result of the test ranged from 0.1 to 1.0, which means the least and most reliable. The suggested reliability level is more than 0.6 (Anderson, 1996; Sekaran, 2000).

Table 4.2 Reliability Test

Reliability Analysis Scale for Importance		
	Cronbach’s Apha	Number of Items
Tangibles	.838	5
Responsiveness	.898	3
Assurance	.900	7
Reliability	.803	3
Empathy	.921	7

4.6 Statistical Treatment of Data

The data of this study were analyzed by via SPSS (statistical package for social science). After collecting responses from four hundred respondents, the data were transformed into numerical form and processed by SPSS. As mentioned above, this research measured service quality by using the mean of “performance” attributes and “importance” attributes, so the applied tool is descriptive statistics.

4.6.1 Descriptive Statistics

According to Zikmund (2013), the descriptive statistics is the technique for summarizing the characteristic of a target population. The input data will become

meaningful providing understandable information by calculating mean, standard deviations, frequency and percentage.

Mean formula:

Equation 4:

$$\bar{x} = \frac{\sum x}{n}$$

Where:

X is the mean value

$\sum x$ is the sum of total observation

n is the number of observation

Percentage formula:

Equation 5:

$$\text{Percentage (\%)} = \frac{f}{n} \times 100$$

Where:

f is the frequency

n is the number of observations

Standard deviation:

Equation 6:

$$S = \sqrt{\sum \frac{(x - \bar{x})^2}{n - 1}}$$

Where:

S is the standard deviation

x is the value of one single observation in the population

\bar{x} is the average mean

n is the number of observations

\sum is the sum of across value

4.6.2 Paired sample t-test

Paired sample t-test is to compare two times measurement with the same sample. It is used to compare the means of two sets of scores that are directly related to each other. Paired sample t-test requires, firstly, the data is normally distributed. Then, Scale of measurement should be interval or ratio. Lastly, the two sets of scores are paired or matched in some way (Zikmund, 2013). In this study, attributes' importance rating and the relatively performance evaluation.

Formula

Equation 7:

$$t = \frac{\bar{d}}{s_d / \sqrt{n}}$$

\bar{d} : paired different

S_d : Standard deviation

n: number of observation

4.6.3 Summary of Statistical Tools for Testing Hypotheses

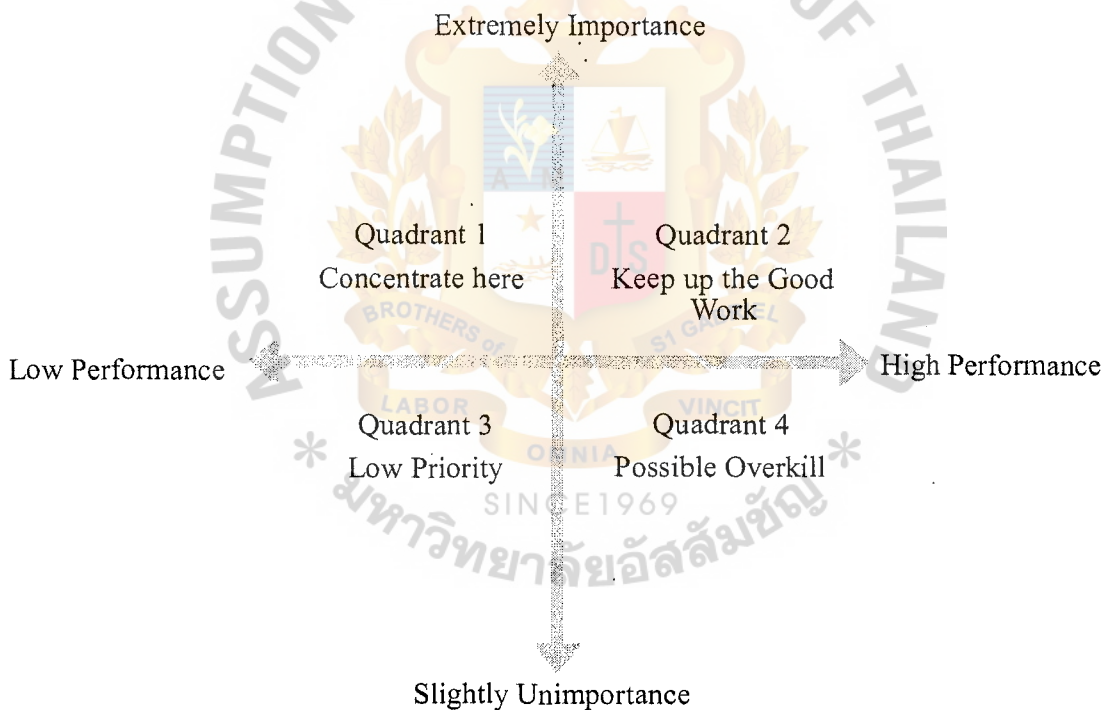
Descriptive statistic tool was chosen to use for analyzing. It is needed to mention that the traditional confidence level of 95% is also applied in this study. From the result provided by SPSS program, researcher would be able to make conclusion for this study.

Null Hypotheses	Hypothesis statements	Statistical test to be employed
H1	There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of tangibles	Paired sample t-test
H2	There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of responsiveness	Paired sample t-test
H3	There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of assurance	Paired sample t-test
H4	There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of reliability	Paired sample t-test
H5	There is no significant difference between divers' importance and diver perceptions' about dive tour performance in terms of empathy	Paired sample t-test

4.6.4 Importance/Performance Analysis

The importance-performance analysis is an assessment of the selected important attributes and the relative performance attributes. Firstly, the mean score of each attribute in both importance and performance is calculated. Secondly, the grand mean of importance and performance is identified as the crosshairs point, the vertical line represents importance, and horizontal line is performance (as show in the Figure 4.2). The importance and performance mean met point of each attributes is indicated on the two dimensional grid.

Figure 4.2 Importance/Performance Action Grids



Source: Martilla, J. A., & James, J. C. (1977). Importance-performance analysis. *Journal of Marketing (pre-1986)*, 41(000001), 77.

The quadrant that attributes are located will tell exactly the attributes situation.

Quadrant 1 Concentrate here: the area that has high importance but low performance, the dive tour operator should put additional effort for improve the attributes. Attributes in this quadrant have importance means greater than the grand mean, but performance means is less than the grand mean.

Quadrant 2 Keep up the good work: the area that concern as highly important and the dive tour operator performance is accordingly as high as the importance. Attributes in this quadrant have importance means higher than the grand mean, and performance means is also higher than the grand mean.

Quadrant 3: Low Priority: the area that contain attributes which is important level and performance is likewise low. Attributes in this quadrant have importance means lower than the grand mean, and performance means is also lower than the grand mean.

Quadrant 4: Possible overkill: the attributes that was invested much more effort than what guest concern as important. Service firm should reduce resource for this attributes to save resources. Attributes in this quadrant have importance mean lower than the grand mean, but performance means is greater than the grand mean.

CHAPTER V

PRESENTATION OF DATA AND DATA ANALYSIS

Chapter V presents the results of the data analysis of a total of 392 respondents from 10 organizations from November 2014 to February 2015. It assisted to find out the key attributes that divers considered as importance when selecting the diving tour operators and how to assess the performance of the chosen diving tour operators.

This chapter presents the results of the survey data in two sections. Section one presents the descriptive statistical analysis of divers' demographic profile, and divers' experience profile. In the second part, the Importance/Performance Analysis for each attribute on five dimensions Tangible, Responsiveness, Reliability, Assurance, and Empathy is exhibited.

5.1 Descriptive Statistics Analysis of Divers Profile

In this study, the researcher collected data from 10 organizations; those have operated diving tour services legally. Descriptive data are shown in the following tables.

Table 5.1 Descriptive Data of Gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	287	73.2	73.2	73.2
	Female	105	26.8	26.8	100.0
	Total	392	100.0	100.0	

As shown in table 5.1, with 392 valid respondents, there are 73.2% of respondents were male and 26.8% were female or nearly three-fourth of the respondents in this study were males.

Table 5.2 Descriptive Data of Age

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 18	5	1.3	1.3	1.3
	19 -25	58	14.8	14.8	16.1
	26 – 35	131	33.4	33.4	49.5
	36 – 45	169	43.1	43.1	92.6
	46 – 59	27	6.9	6.9	99.5
	Above 60	2	.5	.5	100.0
	Total	392	100.0	100.0	

Table 5.2 displayed the age of respondents, most of respondents fell in the group of 26 – 45 years old (76.5%), one third of the total diver were 26 – 35 years old, and another 43% of them were 36 – 45 years old. Interestingly, there were two persons, who are over 60 years old, and five people who were under 18 years old. The group of 26 – 35 years old was 33.4%, and 46 – 59 was 6.9%.

Table 5.3 Descriptive Data of Education Level

Education Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	61	15.6	15.6	15.6
	Bachelor	185	47.2	47.2	62.8
	Masters	132	33.7	33.7	96.4
	Above Masters	14	3.6	3.6	100.0
	Total	392	100.0	100.0	

In education level, Table 5.3 shows that 80.9% of respondents had a bachelor and or master's degree, while 15.6% of them had a high school education. Particularly, 14 respondents were above a master's degree, 3.6% of the total.

Table 5.4 Descriptive Data of Respondents' Occupation

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	29	7.4	7.4	7.4
	Business/Manager	83	21.2	21.2	28.6
	Firm/Government Officer	134	34.2	34.2	62.8
	Labor	62	15.8	15.8	78.6
	Unemployed	8	2.0	2.0	80.6
	Other	76	19.4	19.4	100.0
	Total	392	100.0	100.0	

The divers who were unemployed were 2%, 7.4 of them were student. In the working group, 21.2 % were business owners or firm managers, 34.2% were officers, and 15.8% were laborers. 19.4% of respondents fell into the other group, which including retirement, housework, farmers, or freelancer (Table 5.4, p. 96).

Table 5.5 Descriptive Data of Nationality

Nationality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vietnamese	31	7.9	7.9	7.9
	Korean	19	4.8	4.8	12.8
	Chinese	5	1.3	1.3	14.0
	American	84	21.4	21.4	35.5
	Japanese	12	3.1	3.1	38.5
	Hong Kong	6	1.5	1.5	40.1
	British	76	19.4	19.4	59.4
	Belgian	21	5.4	5.4	64.8
	Irish	7	1.8	1.8	66.6
	Danish	32	8.2	8.2	74.7
	Norwegian	11	2.8	2.8	77.6
	German	24	6.1	6.1	83.7
	Thai	3	.8	.8	84.4
	French	27	6.9	6.9	91.3
	Dutch	34	8.7	8.7	100.0
	Total	392	100.0	100.0	

More than 80% of respondents are from Europe and America. Specifically, 2.8% of them were from Norway, 8.7% were from Holland, 6.9% were from French, 8.2% were from Denmark, 1.8% were from Irish, 5.4% were from Belgium, 19.4% were from British, 21.4% were from U.S.

For Asian divers, the Vietnamese group constituted 7.9%, or 31 people, the Korean group was 4.8%, and the Japanese group was 3.1%, and the Chinese group was 1.3%, Hong Kong group was 1.5%, and Thai group was 0.8%, out of 392 total respondents (Table 5.5 p.97).

5.2 Descriptive Data for Diver Experiences

Table 5.6 Descriptive Data of Number of Diving Trip in Nha Trang

		Time			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never Before	272	69.4	69.4	69.4
	2nd time	71	18.1	18.1	87.5
	More than 2 times	49	12.5	12.5	100.0
	Total	392	100.0	100.0	

Table 5.6 showed that almost 70% of the divers in Nha Trang dived for the first time, 18% did it for the second time, and only 12.5% of them made it for more than two times.

Table 5.7 Descriptive Data of Roles of Diving Tours in Nha Trang Trips

Purpose					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Main purpose	21	5.4	5.4	5.4
	Part of the trip	213	54.3	54.3	59.7
	Just decided	158	40.3	40.3	100.0
	Total	392	100.0	100.0	

More than half of the respondents went diving as a part of a Nha Trang trip, and another 40.3% of them decided to dive on arrival to Nha Trang. 21 people or 5.4% of respondents chose diving as the main purpose to visit Nha Trang (Table 5.7).

Table 5.8 Descriptive Data of Diver Certification

Diving Certificate					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	129	32.9	32.9	32.9
	No	263	67.1	67.1	100.0
	Total	392	100.0	100.0	

Table 5.9 Descriptive Data of Diving Certified Organizations

Diving Organization					
		Frequency	Percent	Valid Percent	Cumulative Percentage
Valid	PADI	77	59.69	59.69	59.69
	SSI	28	21.71	21.71	81.4
	Others	24	18.6	18.6	100.0
	Total	129	100.0	100.0	

Table 5.10 Descriptive Data of Diver Level

Divers Level				
	Frequency	Percent	Valid Percent	Cumulative Percentage
Advanced	31	7.91%	7.91%	7.91%
Open Water	90	22.96%	22.96%	30.87%
Learning	109	27.81%	27.81%	58.67%
Other	162	41.33%	41.33%	100.00%
Fun dive	154	39.29%	39.29%	
More than advanced	8	2.04%	2.04%	
Total	392	100.0	100.0	

Table 5.8 (p. 99) showed that divers in Nha Trang have in many different levels. There are 263 divers (67%) who had no diving certificate, whereas 32.9 % of them are certified. Moreover, Table 5.9 pointed out that almost 60% of certified

divers belonged to the PADI organization, another 21.71% of them were in group of SSI organization, and 18.6% were other groups.

In the certified diver group, which contained 129 people, 90 of them were on the open water level, which is the first level; and 31 people are in the advanced level (8%). Only 2% of total divers were beyond the advanced level (Table 5.10, p.100).

For the uncertified group, 154 out of 263 respondents were on “fun dive” tour, which means diving for fun with intensive care from diving guide. Another 109 divers were part of a learning course (Table 5.10, p. 100).

5.3 Importance/Performance Analysis

In this survey, respondents are asked to rate their importance for each attribute in service quality, and after that, evaluate how well the diving organizations performed. The service quality assessment in this study is based on the Importance/Performance Analysis paradigm (Martilla & James, 1977), and five dimensions from the study of Parasuraman *et al.*, (1988): Tangibles, Responsiveness, Assurance, Reliability, and Empathy.

5.2.1 Tangibles

Tables 5.11 (p. 102) and 5.12 (p. 102) provide the mean scores and standard deviations for both the importance rating and performance evaluations in Tangibles dimension.

Table 5.11 Importance Means for Tangibles Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Appearance/décor of the company's premises should be visually appealing	392	1	4	2.14	.791	4
2	The company's brochures should be visually appealing	392	1	5	2.87	.897	3
3	Vessel should be highly suitable for diving	392	1	5	3.10	.892	2
4	Dive guides should have a neat appearance	392	1	4	2.02	.811	5
5	Company should have good facilities and equipment to cater for diver	392	1	5	3.61	1.026	1
	Valid N (listwise)	392					

Table 5.12 Performance Means for Tangibles Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Appearance/décor of the company's premises were visually appealing	392	1	5	2.43	.952	5
2	The company's brochures were visually appealing	392	1	5	2.67	.928	4

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Table 5.12 Performance Means for Tangibles Attributes (continued)

3	Vessel was highly suitable for diving	392	1	5	2.76	1.091	3
4	Dive guides had a neat appearance	392	1	5	3.20	1.414	2
5	Company had good facilities and equipment to cater for diver	392	1	5	3.80	1.074	1
	Valid N (listwise)	392					

Table 5.11 (p. 102) showed that the attributes “Good facilities and equipment to cater for diver” was the most important (3.61) in the tangibles dimension, followed by “Vessel was highly suitable for diving” (3.1). The least important attribute was “neat appearance of diving guides” (2.02).

Meanwhile, Table 5.12 (p. 102) pointed out that most of diving tour operators had “good facilities and equipment to cater for diver” (3.8). The lowest performance was “visually appealing appearance/décor of the company's premises” (2.43).

5.2.2 Responsiveness

Tables 5.13 and 5.14 provide the mean scores and standard deviations for both the importance rating and diving tour operator performance evaluations in the Responsiveness dimension.

Table 5.13 Importance Means for Responsiveness Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	The diving guide should give prompt service	392	1	5	3.70	.996	1
2	Diving guide should be never too busy to respond	392	1	5	3.30	1.084	2
3	Diving guide should be always willing to help divers	392	1	5	3.02	.999	3
	Valid N (listwise)	392					

Table 5.14 Performance Means for Responsiveness Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	The diving guide gives prompt service	392	1	5	3.45	1.102	1
2	Diving guide is never too busy to respond	392	1	5	3.16	1.084	3
3	Diving guide is always willing to help divers	392	1	5	3.21	1.036	2
	Valid N (listwise)	392					

As in Table 5.13, the most important for divers was “diver should give a prompt service” (3.7), “Diving guide should be never too busy to respond” (3.3) and

“Diving guide should be always willing to help divers” (3.02) were followed respectfully.

On the other hand, Table 5.14 (p.101) pointed out that diving tour operators did best in the attributes “the diving guide gives prompt service”. However, the attributes “diving guide is never too busy to respond” had the lowest score.

5.2.3 Assurance

Tables 5.15 and 5.16 (p.106) provided the mean scores and standard deviation for both the importance rating and performance evaluations in the Assurance dimension.

Table 5.15 Importance Means for Assurance Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Diving guide should consider divers best interests at heart	392	3	5	4.16	.697	3
2	Diving guide should always keep customers informed	392	2	5	3.75	.829	6
3	Diving guide should make divers feel secure	392	3	5	4.70	.491	1
4	Dive tour operators should have no compromise on safety	392	3	5	4.65	.553	2
5	Diving guide should be knowledgeable	392	2	5	4.10	.740	4

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Table 5.15 Importance Means for Assurance Attributes (continued)

6	Behavior of diving guide should give confidence to diver	392	2	5	4.10	.751	4
7	Diving guide should be consistently courteous	392	2	5	3.60	.799	5
	Valid N (listwise)	392					

Table 5.16 Performance Means for Assurance Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Diving guide considers divers best interests at heart	392	1	5	3.89	.911	4
2	Diving guide always kept customer informed	392	2	5	3.92	.871	3
3	Diving guide makes divers feel secure	392	3	5	4.50	.678	1
4	Dive tour operators have no compromise on safety	392	2	5	4.20	1.067	2
5	Knowledgeable diving guide	392	1	5	3.78	.945	5
6	Behavior of diving guide gave confidence to diver	392	1	5	3.65	1.055	6
7	Diving guide was consistently courteous	392	2	5	3.54	.824	7
	Valid N (listwise)	392					

Table 5.15 (p. 105) points out that in the Assurance dimension, the attributes “Diving guide should make divers feel secure” (4.7) had the highest mean score, slightly followed by “Dive tour operators should have no compromise on safety” (4.65). “Diving guide should be consistently courteous” was the least important concern by divers (3.54).

In the Performance table (Table 5.16, p. 106), the attribute “Diving guide makes divers feel secure” brought the most satisfaction for divers (4.5), and the least satisfaction was in “Diving guide was consistently courteous”. Particularly, the attribute “Behavior of diving guide gave confidence to divers” was second least satisfied.

5.2.4 Reliability

Tables 5.17 and 5.18 provide the mean scores and standard deviations for both the importance rating and performance evaluation in the Reliability dimension.

Table 5.17 Important Means for Reliability Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Diving guide should demonstrate right at the first time	392	2	5	3.77	.808	1
2	Diving guide should deliver service to divers on time	392	1	5	3.21	.840	3
3	Diving guide should interest in solving diver problems	392	2	5	3.60	.846	2
	Valid N (listwise)	392					

Table 5.18 Performance Means for Reliability Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Diving guide got things right at the first time	392	1	5	2.93	.952	2
2	Diving guide deliver service to divers on time	392	1	5	2.66	.964	3
3	Diving guide is interested in solving divers' problems	392	2	5	3.80	.852	1
	Valid N (listwise)	392					

In the Reliability dimension (Table 5.17, p.107), the attributes run for first place for in Importance was “diving guide should demonstrate right at the first time” (3.77), followed by “diving guide should be interested in solving diver problems” (3.6) and “diving guide should service to divers on time” (3.21)

Table 5.18 showed that “Diving guide was interested in solving divers’ problem” (3.8) was the one that had the highest performance, “diving guide got things tight at the first time” (2.93), and “diving guide delivered service divers on time” (2.66) followed respectfully.

5.2.5 Empathy

Tables 5.19 and 5.20 provide the mean scores and standard deviations for both the importance ratings and performance evaluations in the Empathy dimension.

Table 5.19 Important Means for Empathy Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Diver should be more convenient than on their own	392	2	5	3.63	.814	5
2	Dive tour operators should understand the specific needs of divers	392	2	5	3.80	.807	3
3	Divers should be treated like special individuals	392	1	5	2.90	.891	7
4	Diving guide should give individualized attention to divers	392	1	5	3.10	.908	6
5	There should be no excessive waiting time for divers	392	2	5	4.21	.792	1
6	Diving guide should attend to diver's needs promptly	392	2	5	3.75	.815	4
7	Diving guide should make dives more enjoyable	392	2	5	4.17	.774	2
	Valid N (listwise)	392					

Table 5.20 Performance Means for Empathy Attributes

Descriptive Statistics							
No.	Attributes	N	Minimum	Maximum	Mean	Std. Deviation	Rank
1	Divers feels more convenient than on their own	392	2	5	4.57	.701	2
2	Dive tour operator understands the specific needs of divers	392	2	5	3.45	.805	7
3	Divers are treated like special individuals	392	2	5	4.10	.882	4
4	Diving guide gives an individualized attention to divers	392	1	5	3.68	1.142	6
5	There was no excessive waiting time for diver	392	2	5	3.70	1.010	5
6	Diving guide attended to diver's needs promptly	392	2	5	4.30	.685	3
7	Diving guide made dive more enjoyable	392	2	5	4.60	.686	1
	Valid N (listwise)	392					

It can be seen that in Table 5.19 (p.109), the attribute “There should be no excessive waiting time for diver” was the most important concern for divers, and least one was “Divers should be treated like special individuals”.

On the other hand, the performance of diving tour operators was the best with the attribute “Diving guide made dive more enjoyable”, while the worse performance

belonged to the attribute “Dive tour operator understands the specific needs of divers” (Table 5.20, p. 110).

5.2.6 Importance/Performance Matrix

The most effective point of Importance/Performance Analysis is the ability to show which aspects that diving tour operators should pay more attention, and spend more effort, as well as pointing out which part is consuming too many resources (Hudson et al., 2004). Table 5.21 provides an overview of the mean scores and standard deviations for importance rating and performance evaluations.

Table 5.21 Importance and Performance Level by Divers (N=392) for Diving Tour Operator Attributes

No.	Items	Importance		Performance	
		Mean	Std. Deviation	Mean	Std. Deviation
1	Visually appealing appearance/decor	2.14	.791	2.43	.952
2	Visually appealing brochures	2.87	.897	2.67	.928
3	Vessel is highly suitable	3.10	.892	2.76	1.091
4	Neat appearance of diving guide	2.02	.811	3.20	1.414
5	Good facilities and equipment to cater for diver	3.61	1.026	3.80	1.074
6	Prompt service from diving guide	3.70	.996	3.45	1.102
7	Diving guide is never too busy to respond	3.30	1.084	3.16	1.084
8	Diving guide is always willing to help divers	3.02	.999	3.21	1.036
9	Diving guide considers divers best interests at heart	4.16	.697	3.89	.911

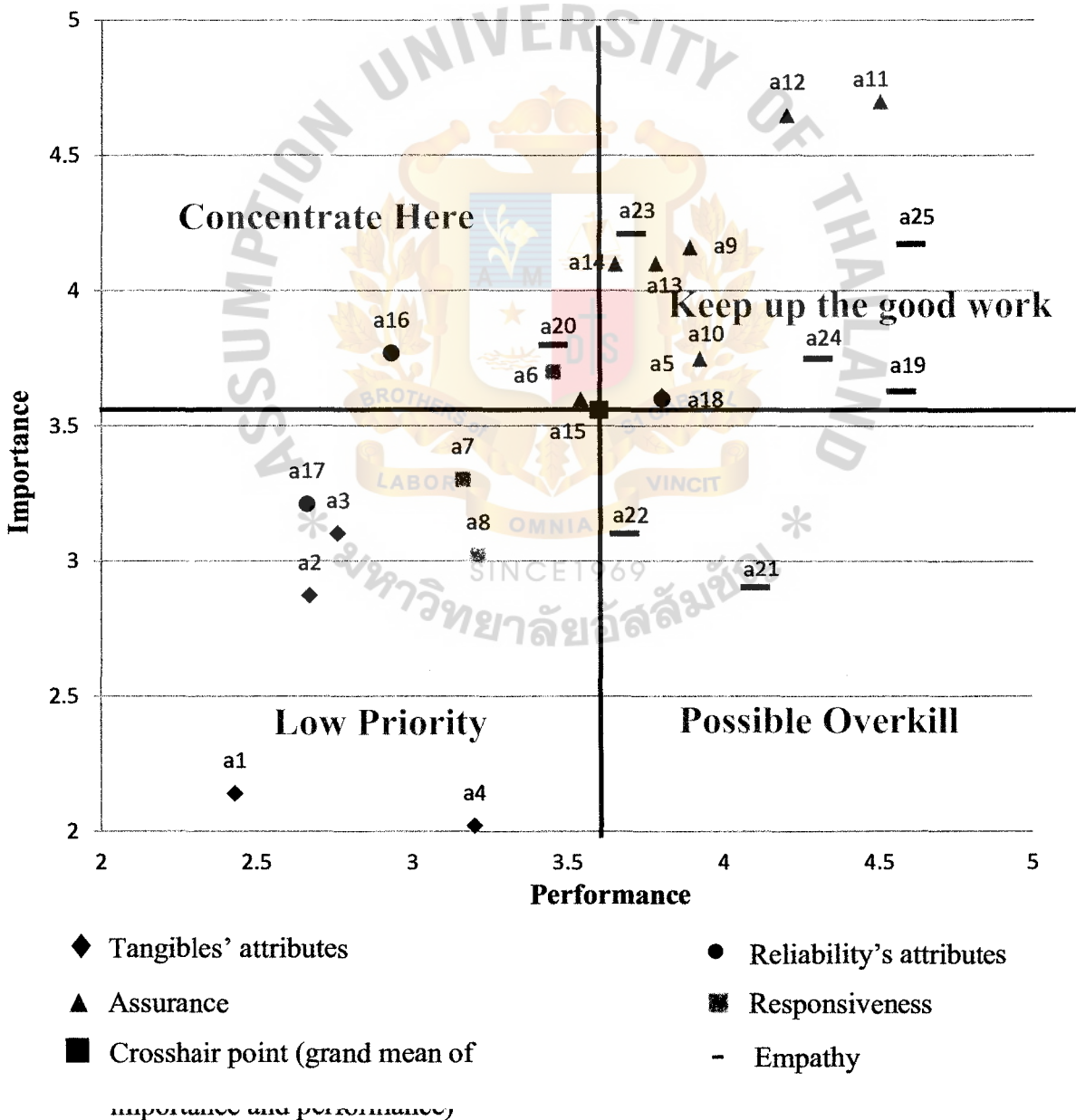
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Table 5.21 Importance and Performance Level by Divers for Diving Tour Operator Attributes (continued)

10	Diving guide always keeps customer informed	3.75	.829	3.92	.871
11	Diving guide makes divers feel secure	4.70	.491	4.50	.678
12	Dive tour operators have no compromise on safety	4.65	.553	4.20	1.067
13	Knowledgeable diving guide	4.10	.740	3.78	.945
14	Behavior of diving guide gives confidence to diver	4.10	.751	3.65	1.055
15	Consistently courteous diving guide	3.60	.799	3.54	.824
16	Diving guide got things right at the first time	3.77	.808	2.93	.952
17	Diving guide deliver service to divers on time	3.21	.840	2.66	.964
18	Diving guide is interested in solving divers' problems	3.60	.846	3.80	.852
19	Diver feels more convenient than on own	3.63	.814	4.57	.701
20	Diving guide understands the specific needs of divers	3.80	.807	3.45	.805
21	Divers are treated like special individuals	2.90	.891	4.10	.882
22	Diving guide give an individualized attention to divers	3.10	.908	3.68	1.142
23	There is no excessive waiting time for diver	4.21	.792	3.70	1.010
24	Diving guide attends to diver's needs promptly	3.75	.815	4.30	.685
25	Diving guide makes dive more enjoyable	4.17	.774	4.60	.686

The Figure 5.1 gives an overview look in positioning all attribute in the grid. In detail, the mean of each attribute in both importance and performance is used as the point for positioning into the two dimensional grid. The horizontal axis represents the overall means of importance level, whereas the vertical axis represents the overall means of performance level. The grand mean of importance (3.55) and performance (3.6) is taken as the crosshair point that divides the matrix into four quadrants.

Figure 5.1 Importance/Performance Matrix in Attributes Perspective



Quadrant I, labeled “Concentrate Here”, cover four attributes “Diving guide got things right at the first time”; “Prompt service from diving guide”; “Diving guide understands the specific needs of divers”; “Consistently courteous diving guide”. Over the selected dive tour operator, those four attributes are the weakest, these need to invest more effort, because it is important to diver, but tour operators’ performance displayed low satisfaction.

Quadrant II, labeled “Keep up The Good Work”, shows that diving tour operators performed very well for those attributes that are considered importance to respondent’s important level. It is a collection of attributes: “good facilities and equipment to carter for diver”; diving guide are interested in solving diver problems”; “divers feel more convenient than on their own”; “diving guide always keeps diver informed”; “diving guide attends to diver’s needs promptly”; “Knowledgeable diving guide”; “Behavior of diver guide give confidence to diver”; “Diving guide consider divers best interest at heart”; “There is no excessive waiting time for diver”; “diving guide make dives more enjoyable”; “dive tour operator have no compromise on safety”; “diving guide makes diver feel secure”.

Quadrant III, labeled “Low Priority”, had attributes: “Visually appealing appearance/décor”; “Neat appearance of diving guide”; “Visually appealing brochures”; “Vessel is highly suitable”; “Diving guide deliver service to divers on time”; “Diving guide is never too busy to respond”; “Diving guide is always willing to help divers”. The attributes in this area have the characteristic of low importance and low performance. However, Lin (2009) suggested that service firms should not consider too much on investing for those attributes in this area, they should instead concentrate on the attributes on Quadrant I, which have high importance concern with low performance.

Quadrant IV, labeled “Possible Overkill”, contains two attributes: “Diving guide gives individual attention to divers”; and “diver is treated as special”. The attributes in this area have low importance but where performance is above average. However, it does not mean that firms should disregard those attributes; it could be a potential strength for the firms (Weber, 2000). Resources that are utilized to such attributes could have been used somewhere else.

Table 5.22 (p. 114) shows rank wise standing of both Importance mean and Performance Mean in dimensions perspective. For Importance, Assurance dimension have the highest mean score (4.15), followed by Empathy (3.53). The middle one was Reliability (3.53). The second lowest one was Responsiveness (3.34), and the lowest one was Tangibles (2.75). It could be understood that divers considered most in Assurance dimensions or the safety attributes, and did not mind much on Tangibles dimension or the appearance attributes.

For Performance, Empathy dimension brought out the most satisfaction for divers (4.06), followed by Assurance (3.93), Responsiveness (3.27), Reliability (3.13), and Tangibles (2.97) in decreasing order respectively. It can be seen that diving tour operator in Nha Trang did best for Assurance dimension, means that they were careful and kind to divers. Rank-wise performance of Tangibles dimension was lowest, though, that they perform well as compared to importance.

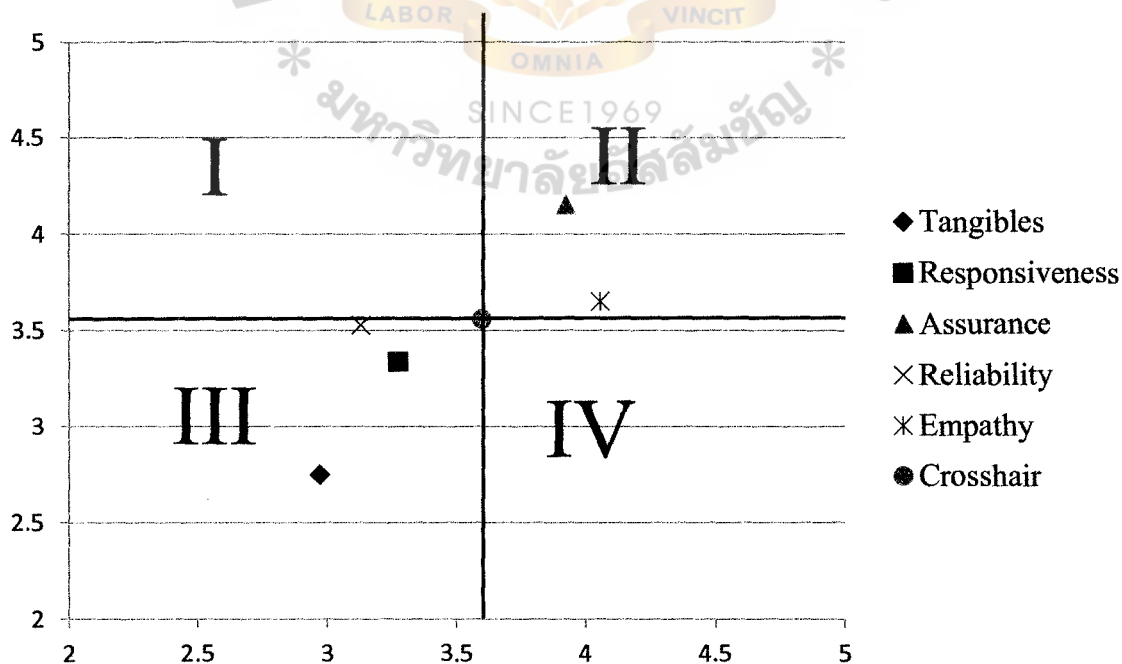
Figure 5.2 (p. 114) monitors the relative position of each service quality dimension. Overall, five dimensions, Tangibles, Responsiveness, Assurance, Reliability, and Empathy are located in two quadrants “Keep up the good work”, and “Low Priority”, which have different characteristic. In details, Quadrant II, “Keep up the good work”, means high importance and high performance, and involves two dimensions, Assurance and Empathy. On the other hand, Quadrant III, “Low

Priority”, means low importance and low performance, is the collection of dimensions Reliability, Tangibles, and Responsiveness.

Table 5.22 Importance/Performance Dimension Means Scores

Dimensions	Importance Mean		Performance Mean		Rank	
					Imp.	Per.
Tangibles	2.75	Neither	2.97	Neither	5	5
Responsiveness	3.34	Neither	3.27	Neither	4	3
Assurance	4.15	Somewhat important	3.93	Somewhat satisfied	1	2
Reliability	3.53	Somewhat important	3.13	Neither	3	4
Empathy	3.65	Somewhat important	4.06	Somewhat satisfied	2	1

Figure 5.2 Importance/Performance Matrix in Dimension Perspective



5.2.7 Paired Sample T-test

Regardless to the positioning of each attributes in the grid. The following tables provide the details of how much different between importance means and performance means. It helps diving tour operators to understand how well that they performed, and how much they should invest for each attributes. Paired sample T-test were performed to find whether any significant difference exist between importance concern and perception of performance of service of diving tour operator.

Table 5.23 Gap between Importance and Performance in Tangibles Dimension

No.	Items	Importance Mean	Performance Mean	Performance minus Importance	t value	Sig. (2-tailed)
1	Visually appealing appearance/decor	2.14	2.43	0.29	4.484	.000
2	Visually appealing brochures	2.87	2.67	-0.20	-3.083	.002
3	Vessel is highly suitable	3.10	2.76	-0.34	-4.750	.000
4	Neat appearance of diving guide	2.02	3.20	1.18	13.915	.000
5	Good facilities and equipment to cater for diver	3.61	3.80	0.19	2.616	.009

Table 5.23 shows that, in the Tangibles dimension, two out of five attributes have the minus score (“Visually appealing brochures”, “Vessel is highly suitable”) and the others three have the plus score (“Visually appealing brochures”, “Neat appearance of diving guide”, “Good facilities and equipment to cater for diver”). All

of the differences between importance and performance under Tangibles dimension are found to be statistically significant.

Table 5.24 Gap between Importance and Performance in Responsiveness Dimension

No.	Items	Importance Mean	Performance Mean	Performance minus Importance	t value	Sig. (2-tailed)
6	Prompt service from diving guide	3.70	3.45	-0.25	-3.614	.000
7	Diving guide is never too busy to respond	3.30	3.16	-0.14	-1.976	.049
8	Diving guide is always willing to help divers	3.02	3.21	0.19	3.104	.002

In the Responsiveness dimension, two out of three attributes that need to be improved, “Prompt service from diving guide”, “Diving guide too busy to guide” (Table 5.24). All of the differences are statistically significant.

Table 5.25 Gap between Importance and Performance in Assurance Dimension

No.	Items	Importance Mean	Performance Mean	Performance minus Importance	t value	Sig. (2-tailed)
9	Diving guide considers divers best interests at heart	4.16	3.89	-0.27	-4.950	.000
10	Diving guide always keeps customer informed	3.75	3.92	0.17	2.951	.003
11	Diving guide makes divers feel secure	4.70	4.50	-0.20	-5.019	.000

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Table 5.25 Gap between Importance and Performance in Assurance Dimension
(continued)

12	Dive tour operator has no compromise on safety	4.65	4.20	-0.45	-7.703	.000
13	Knowledgeable diving guide	4.10	3.78	-0.32	-5.660	.000
14	Behavior of diving guide gives confidence to diver	4.10	3.65	-0.45	-7.090	.000
15	Consistently courteous diving guide	3.60	3.54	-0.06	-1.277	.202

The Assurance dimension contains six out of seven attributes, which are on the negative side (table 5.25, p. 118). Assurance dimensions need to be investigated carefully and after that invest more resources to improve performance. All the differences are statistically significant. Except attribute “Consistently courteous diving guide”, all differences are statistically significant.

Table 5.26 Gap between Importance and Performance in Reliability Dimension

No.	Items	Importance Mean	Performance Mean	Performance minus Importance	t value	Sig. (2-tailed)
16	Diving guide got things right at the first time	3.77	2.93	-0.84	-14.80	.000
17	Diving guide delivery service to divers on time	3.21	2.66	-0.55	-9.327	.000
18	Diving guide is interested in solving divers problems	3.60	3.80	0.20	3.532	.000

In Reliability dimension, two of three attributes have an importance mean greater than performance mean (table 5.26, p. 119). The biggest gap on the negative side is in this dimension, “Diving guide got thing right at the first time. All the differences are statistically significant.

Table 5.27 Gap between Importance and Performance in Empathy Dimension

No.	Items	Importance Mean	Performance Mean	Performance minus Importance	T value	Sig. (2-tailed)
19	Diver feels more convenient than on own	3.63	4.57	0.94	18.503	.000
20	Diving guide understands the specific needs of divers	3.80	3.45	-0.35	-5.994	.000
21	Divers are treated like special individuals	2.90	4.10	1.20	19.317	.000
22	Diving guide gives individualized attention to divers	3.10	3.68	0.58	8.028	.000
23	There is no excessive waiting time for diver	4.21	3.70	-0.51	-7.440	.000
24	Diving guide attends to diver's needs promptly	3.75	4.30	0.55	9.729	.000
25	Diving guide makes dive more enjoyable	4.17	4.60	0.43	8.996	.000

The Empathy dimension contains five out of seven attributes on the positive side (Table 5.27). Especially, the attribute “divers are treated like special individuals” have the considerable gap on positive side, means the attribute was performed well as perceived by respondents of this study. All the differences are statistically significant.

CHAPTER VI

SUMMARY OF FINDINGS. CONCLUSIONS AND RECOMMENDATIONS

This chapter involves four sections. The first section is the summary of findings, followed by the conclusions of study, the third one discusses the recommendations, and the last one contains suggestions for further study.

6.1 Summary of Findings

6.1.1 Divers Sample Profile

One of the objectives of this study is to create divers profile for assisting further study or others purposes for diving tour operators, Nha Trang MPA management board, and others researchers.

Ten dive tour operators in Nha Trang (Viet Nam) were selected for research. The questionnaires were distributed during period from November 2014 to February 2015. 450 sets of questionnaires were distributed in three languages: English, Vietnamese, and Russian. There were 392 valid sets collected in return, achieved an 80% of response.

Among the 392 respondents 73.2% of them were male and 26.8% were female, most of them were in under the age range from 26 to 45 years old (76.5%), who have a high education level (84.5% have at least a bachelor's degree). The demographic results showed a similarity to studies on diving tourism that was already studied before (Bennett, 2002; Musa, 2002; O'Neil et al., 2002; Skin Diver, 1989).

Table 6.1 Summary of Demographic Factor from Previous Study

Authors and Years	Gender	Age	Occupation	Education
Skin Diver 1989	65% are male 30% are female	Average of 35.3 years old	Professional Owner Manager	84.2% attended to college or university
Musa 2002	64.8% are male 35.2% are female	Average age of 34.9 years		71% have higher than high school
O'Neil 2002		65% are 25 – 44 years old		
Bennett 2002	64% are male 36% are female	75% are 26 – 45 years old		73% attended college or university

Hall (1992) concluded that, firstly, in special tourism, there are more male participator than female one. However, over time, the number of females, who participate in special interest tourism has increased steadily (Hall, 1992). Secondly, most of them are under the age of 26 – 45 years old, with white collar occupation, and high education level. Those conditions give them a chance to earn more than average incomes and effort for this tourism niche. This group loves participating in discovering nature, self-achievement, and risk-taker. The second part (divers' experience profile) tended to emphasize this point by showing that 70% of divers in Nha Trang made the dive for the first time, almost 70% of them do not have diving certificates, and less than half of uncertified divers are in learning courses. Most of

divers in Nha Trang do not make diving as the main purpose of the trip (95%). Among the certified divers in Nha Trang, PADI show its certifying 60% of divers in Nha Trang.

The diver nationality profile was unexpected to the researcher. The nationalities that were mentioned in the questionnaire were collected from the list of nationalities that had the highest number of visitors to Nha Trang in 2014, for example: Russian, American, or Korean. However, the visitors that participated diving activities are in minor groups such as: British, Belgium, Irish, Danish, Norwegian, German, French, Thai, Dutch, and Hong Kong. Remarkably, the Vietnamese group was only 8% of this sample group. The most surprising point is there were no Russian respondents for this study. It needs to be mentioned that there was one dive tour operator who failed to distribute any questionnaires, because their main target customers are Russian. The researcher tried to investigate the problem from the diving tour operator. The provided reason was that Russians do not want to be disturbed by anything that is not enjoyable for them. Furthermore, they preferred only the Russian speaker service provider, and avoided communicating in other languages, so the researcher was unable to implement the questionnaires to Russians.

6.1.2 Importance/Performance Analysis

This study applies Importance/Performance Analysis techniques to identify the important attributes that concern by divers and how the dive tour operator performed related to those attributes. The questionnaire set contains five factors with twenty-five attributes, which was collected in the SERVQUAL model of Parasuraman et al., (1988).

The survey asked the respondents to rate both importance of the dive trip and how well the dive tour operator performed based on five dimensions of service quality, those are Tangibles, Responsiveness, Assurance, Reliability, and Empathy (Parasuraman et al., 1988). For importance rating, the two most important attributes that concerned by divers are “diving guide makes divers feel secure” (4.7) and “dive tour operator has no compromise on safety” (4.65). It is clear that divers are very concerned about safety while participating in the dive tour. The two least important attributes for divers are “neat appearance of diving guides” (2.02), “visually appealing appearance/décor” (2.14). It means divers did not care much about the appearance.

For performance evaluation, the top three highest scores belong to these attributes: “Diving guide makes dives more enjoyable” (4.6), “diver feels more convenient than on own” (4.57), and “diving guide make divers feel secure” (4.5). The attributes that show least satisfaction are “visually appealing appearance/décor” (2.43), and “diving guide deliver service to divers on time” (2.66).

The results of this study show that security attributes such as: secure level, experienced diving guide, and diver confidence levels are more important than appearance and relational attributes for example: individual care, courteous level. Interestingly, the study of O'Neill et al. (2002) in 2002 in diving tourism in Australia gave the similar outcome.

In dimension perspective, the strength points of the diving tour operators in Nha Trang are Assurance and Empathy, and the dimensions that should be set as low priority are Tangibles, Responsiveness and Reliability.

On the positive side, performance is higher than importance, there are eleven attributes. The two attributes that had widest distance were “divers are treated like

special individuals” (1.2) and “neat appearance of diving guide” (1.18). Moreover, the closest gap were “diving guide is always willing to help divers” (0.19) “good facilities and equipment to carter for diver” and “diving guide always keep customer informed” (0.17).

On the other hand, the negative side, when performance is lower than importance, there are fourteen attributes. The greatest difference belongs to the attribute: “Diving guide got thing right at the first time” (-0.84). The minimum distance is attribute “Consistently courteous diving guide” (-0.06).

6.1.3 Hypotheses Testing Results

Table 6.1 (p.123) indicated the results of hypotheses testing by showing the different between importance and performance for each dimension.

Table 6.1 Hypothesis testing results

Hypothesis	Dimensions	Importance Mean	Performance Mean	Performance minus Importance	t value	Sig. (2-tailed)	Results
H ₀ 1	Tangibles	2.7469	2.9704	.22347	.064	.000	Rejected H ₀ 1
H ₀ 2	Responsiveness	3.3376	3.2757	-.06189	-.247	.296	Failed to reject H ₀ 2
H ₀ 3	Assurance	4.1512	3.9272	-.22393	-.250	.000	Rejected H ₀ 3
H ₀ 4	Reliability	3.5295	3.1340	-.39548	-.206	.000	Rejected H ₀ 4
H ₀ 5	Empathy	3.6514	4.0567	.40531	.082	.000	Rejected H ₀ 5

Table 6.1 shows clearly Tangibles dimension and Empathy dimension had a high performance, which was more than importance level. The highest difference was

Empathy (0.40531) and the lower was Tangibles (0.22347). On the other side, Responsiveness, Assurance and Reliability dimension are performed less than what divers felt important. The widest gap was Reliability (-0.39), Assurance (-0.224), and Responsiveness (-0.062) are followed respectively. Furthermore, two-tailed significant test do reveal that these differences are nonetheless significant at the level $p < 0.05$ in case of four out of five dimensions assessed (except Responsiveness).

6.2 Conclusions

First of all, it can be concluded that for divers who participate in diving activity in Nha Trang, Safety and secure, or Assurance dimension is the most important, followed by Empathy, Reliability, Responsiveness, Tangibles. The attributes that they are concerned most is “diving guide make diver feel secure” (4.7).

However, the highest performance provided by tour operator is Empathy, or caring and individuals attention; followed by Assurance Responsiveness, Reliability, and Tangibles are followed respectively. The best performance attributes belong to “Diving guide made dive more enjoyable” (4.6).

Tour operator seems to be careless in Reliability dimension, that’s why there is a wide gap in this dimension, and the furthest distance is on attribute “Diving guide got thing right at the first time”. Interestingly, Tangibles dimension is perceived low priority from both side divers and diving tour operator services.

The similarity of diver’s profiles showed that, over the years, characteristics of diving tourists do not make any significant change. They are young, highly educated, from the urban areas, and usually white collar workers. They are risk-takers, self-achievers, and prefer adventure in outdoor environments.

In diving tourism industry, the Nha Trang diving tour operators are the new players (Lindsey & Holmes, 2002). However, they already had a certain

understanding about the need of divers. The results of the data analyzing show that tour operators performed well in the levels that divers felt was important, for example: the Empathy and Assurance dimension had high importance level and diving tour operator performance brought high satisfaction as well. On other sides, Tangibles, Responsiveness, and Reliability dimension have low levels of importance, and diving tour operators also performed according to that level.

Most of the assessed attributes did not need intensive care (19/25 attributes). Especially, eleven attributes in the Quadrant II could be seen as strength of diving tour operator in Nha Trang such as: “Good facilities and equipment to cater for diver”, “Diving guide considers divers’ best interests at heart”, “Diving guide always keeps customer informed”, “Diving guide makes divers feel secure”, “Dive tour operator makes no compromise on safety”, “Knowledgeable diving guide”, “Behavior of diving guide gives confidence to diver”, “Diving guide interested in solving divers’ problems”, “Diver feels more convenient than on own”, “There is no excessive waiting time for diver”, “Diving guide attends to diver’s needs promptly”. Weber (2000) suggests that attributes that have high importance and high performance are the strength of the organization, and it should be competitive advantages in the long term.

However, there are some attributes that are still needed to be rearranged in terms of resources for improving the service quality. Particularly, the attributes that need more investment are in the Quadrant of “Concentrate Here” such as: “prompt service from diving guide”, “consistently courteous diving guide”, “diving guide got thing tight at the first time”, and “diving guide understands the specific needs of divers”. Those attributes had high level importance but performance from diving tour operators did not achieve to the sufficient level. The attributes “diving guide got thing

right at the first time” should be taken care on most because it has a greatest gap between performance and importance (Table 5.23 p. 112)

At the same time, the attributes of individual care like “diver is treated like special individuals” and “diving guide give an individualized attention to divers” should be view as potential strength because of its high performance, but the level of resources investment priority should be reset to be lower.

6.3 Recommendations

Service quality is always a key for customer satisfaction and in the long term it creates sustainable profit by a customer retention, so service quality can never be neglected.

O’Neil *et al.* (2000) suggested that Importance/Performance Analysis is a very good first step for a new industry, where identifying what is importance for divers and how dive tour operators perform is very critical. Sethna (1987) also stated that Importance/Performance Analysis is a good technique for remedial action.

For organization, arranging resources is a critical mission for managers. Importance/Performance Analysis is a useful tool for guiding investment strategy. This study aims to provide a recommendation for each quadrant.

6.3.1 Quadrant I: Concentrate Here (high importance and low performance)

Quadrant “Concentrate Here” is the weakness of the organization (Weber, 2000). Four attributes under this group (“Prompt service from diving guide”, “Consistently courteous diving guide”, “Diving guide got thing right at the first time”, “Diving guide understands the specific needs of divers”) must rearrange more

resources. Especially, attributes “diving guide got thing right at the first time”, which have a considerable gap (-0.84) need to be priority in investment for improving. Ince and Bowen (2010) suggested that diving guide and diver buddies should discuss more for understanding each other, so diving guide know exactly what best for diver and would not loss impression.

6.3.2 Quadrant II: Keep Up the Good Work (high importance and high performance)

Attributes in this quadrant should be promoted as strength. Fortunately, almost half of the total attributes are in this area, so diving industry of Nha Trang have many chances to compete with others diving destinations in the same region of South-east Asian. Those are: “Good facilities and equipment to carter for diver”, “Diving guide considers divers’ best interests at heart”, “Diving guide always keeps customer informed”, “Diving guide makes divers feel secure”, “Dive tour operator makes no compromise on safety”, “Knowledgeable diving guide”, “Behavior of diving guide gives confidence to diver”, “Diving guide interested in solving divers’ problems”, “Diver feels more convenient than on own”, “There is no excessive waiting time for diver”, “Diving guide attends to diver’s needs promptly”

This study again emphasizes the role of security and safety aspect in diving tourism and adventure tourism in the big picture. Most of attributes of Assurance dimension are in this area, where customer concern as high importance. Indeed, regardless to the activities risk level, safety standards must never be ignored. Nha Trang diving tour operators seems to understand that, that’s why the performance evaluation was also high. Most importantly, sustaining the reputation is a critical

mission, so diving tour operator should not lose their concentrate in maintaining the performance.

6.3.3 Quadrant III: Low Priority (low importance and low performance)

Quadrant III contains eight attributes, such as: “Visually appealing appearance/décor”, “Visually appealing brochures”, “Vessel is highly suitable”, “Neat appearance of diving guide”, “Diving guide never too busy to respond”, “Diving guide is always willing to help divers”, “Diving guide deliver service to divers on time”, “Diving guide makes dive more enjoyable”. Performance in this quadrant, “low priority”, should not be viewed as serious issue, even though it had low performance level, because the importance level is also low. Four out five attributes of Tangibles dimension are in this area, so the tangibles dimension should be the least priority when placing resources investment.

However, Martilla and James (1977) proved that there is a positive relationship between customer performance rating and their loyalty. It means customer that rate low performance seem to have low loyalty level as well, so knowledge about customer desires should be updated regularly to make sure that firm give customer more than what they want to gain for more satisfaction from customer and maintain their loyalty.

6.3.4 Quadrant IV: Possible Overkill (low importance and high performance)

Because of it high performance, Weber (2000) suggested that two attributes in this quadrant (“Divers is treated like special individuals”, “Diving guide gives an individualized attention to divers”) should be viewed as potential strength for

organization. However, with its low importance, diving tour operator should rearrange resources to a sufficient level, which still maintain the satisfaction from divers, but not consume too much resource. While reducing investment for those attributes, diving tour operators should carefully check for the suitable level to avoid dissatisfaction feeling from divers.

6.4 Suggestions for Future Study

As researcher experiences, there are lack of study on diving tourism in Nha Trang, so this study would worth as a source of information to extend study in Nha Trang

The desire of study is to cover all the diving tourists in Nha Trang, but it fail to evaluate the Russians and others Non-English speaker groups of divers. it needs to have a study that include those groups, because they play a big part in Nha Trang tourism, for Example: Russian, Chinese.

This study has used a quantitative technique, which has the advantage of covering a high number of respondents. However, its drawback is the limitations of collected information, where respondents filled importance and performance at the same time. Researchers point out that service quality evaluation in diving tourism is very complicated (Ince & Bowen, 2006; O'Neil et *al.*, 2000), so it needs more qualitative studies, whose strength is learning more in depth information from divers.

This study used the Importance/Performance paradigm, where attributes for assessment were collected in a previous study. In diving tourism, there are many factors and attributes that might affect customer behavior as well, so further study for assessing other factors and attributes is recommended.

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<http://www.vietnamtourism.gov.vn>

<http://www.oceanservice.noaa.gov>

APPENDIX A

ENGLISH - VIETNAMESE QUESTIONNAIRE

Guideline for Questionnaire Distribution

The purpose of this questionnaire is to investigate the service quality in diving tourism in Nha Trang. The results of this questionnaire will assist us, including management board and your organization, to understand what attribute is important to guest in diving tourism, and to acknowledge guests' opinion about your organization's performance. We deeply appreciate the time and effort that you and your organization spend to help us for implementing this study and particularly this questionnaire. To avoid any misunderstanding in distribution process, we would like to provide you a guideline for this questionnaire distribution.

1) This questionnaire will be distributed to the diver who participates in the diving activity for **one day trip only**. Divers who do not fully attend for one day trip are not able to evaluate accurately all attributes in the questionnaire, therefore it would cause invalid questionnaire.

2) For the “Western look” guess, the Russian-English version should be delivered, and for “Asia look”, the Vietnamese-English version is recommended.

3) The first part of this Questionnaire (Part I) should be done by divers on the way to Nha Trang port, **before divers experience the diving trip**. The rest (Part II, III, and IV) should be completed after the dive (on the way back).

4) If there is any confusion or questions, please don't hesitate to contact me. The contact details are: Mr. Vo Tran Hai Linh (01224 731 231) or email: linhvo.ti@gmail.com.

THANK YOU VERY MUCH FOR YOUR HELP!

Hướng Dẫn Cách Thức Thu Phát Bảng Câu Hỏi

Bảng câu hỏi này hướng đến mục tiêu tìm hiểu chất lượng dịch vụ trong du lịch lặn tại Nha Trang. Kết quả của cuộc khảo sát sẽ giúp cho các cơ quan quản lý và các công ty du lịch lặn hiểu thêm về yếu tố nào được khách đi lặn coi trọng, và thu thập ý kiến đánh giá của khách về chất lượng dịch vụ đang được cung cấp bởi các công ty du lịch lặn tại Nha Trang. chúng tôi chân thành cảm ơn quý công ty và những người thực hiện đã giúp đỡ để dự án này diễn ra trôi chảy. Để tránh mọi sự hiểu lầm trong quá trình thu phát phiếu khảo sát, làm ảnh hưởng đến kết quả của đợt khảo sát, chúng tôi xin phép gửi đến bản hướng dẫn này.

1) phiếu khảo sát này **chỉ dành cho khách đi lặn trọn vẹn một ngày**. Những khách lẻ, không đi trọn vẹn một ngày sẽ không được trải nghiệm đầy đủ các dịch vụ khi đi lặn, qua đó không thể đánh giá hết các tiêu chí có trong bảng câu hỏi.

2) Đối với khách “Tây”, nên ưu tiên phát bản “Nga-Anh”, và đối với khách Việt, ưu tiên phát bản “Việt-Anh”

3) Phần I của phiếu khảo sát sẽ được thực hiện bởi người đi lặn trước khi trải nghiệm du lịch lặn. các phần còn lại (phần II, III, IV) sẽ được thực hiện sau khi trải nghiệm xong.

4) Trong quá trình thu phát phiếu khảo sát, nếu có bất kì khó khăn hay khúc mắc gì, xin vui lòng liên lạc cho Võ Trần Hải Linh (Mr) số điện thoại 01224 731 231 hoặc email: linhvo.ti@gmail.com.

CHÂN THÀNH CẢM ƠN SỰ GIÚP ĐỠ CỦA MỌI NGƯỜI!



QUESTIONNAIRE

Greeting! As an MBA-TRM (Master of Business Administration in Tourism) student of Assumption University of Thailand, this questionnaire is part of my requirement for fulfillment of a Master's Degree in Tourism. This questionnaire is designed to solicit your opinion about the **service quality in diving tourism in Nha Trang Bay**. The results of this survey would help the dive operators and others stakeholders to have an in-depth understanding about diving tourism industry in Nha Trang and its service quality, what is concerned by divers as importance and how divers perceive the performance from diving tourism operator.

Your answers will be treated as under confidential information and used for academic purposes only. It should take about 10 minutes to answer this questionnaire. Please answer all questions below. I am very grateful and appreciate if you could help. Thank you and have a great day!

Sincerely,

Vo Tran Hai Linh (Mister)

For the following questions, tick (✓) one that matches best with your opinion/
 Chọn một phương án trả lời phù hợp nhất với bạn.

Part I: Evaluate attribute that diver concern as important in diving tourism
 service/ Đánh giá yếu tố mà khách cho là quan trọng trong chuyến đi lặn

Importance/ Tính Quan Trọng					
	Not at all Important Không quan trọng	Somewhat not Important Kém quan trọng	Neither Có thể quan trọng	Somewhat Important quan trọng	Very Important Rất quan trọng
Tangibles/ Hữu Hình	1	2	3	4	5
1. Appearance/décor of the company's premises should be visually appealing/ (Trang trí bên ngoài câu lạc bộ bắt mắt)					
2. The company's brochures should be visually appealing / (Tài liệu in ấn quảng bá cho câu lạc bộ bắt mắt)					
3. Vessel should be highly suitable for diving/ (Tàu chở khách rất phù hợp cho dịch vụ lặn)					
4. Dive guide should have a neat appearance/ (Hướng dẫn viên có trang phục gọn gàng chỉnh tề)					
5. Company should have good facilities and equipment to cater for diver/ (Trang thiết bị lặn đủ tiêu chuẩn phục vụ khách đi lặn)					

For the following questions, tick (✓) one that matches best with your opinion/
 Chọn một phương án trả lời phù hợp nhất với bạn.

Part I: Evaluate attribute that diver concern as important in diving tourism
 service/ Đánh giá yếu tố mà khách cho là quan trọng trong chuyến đi lặn

Importance/ Tính Quan Trọng					
	Not at all Important Không quan trọng	Somewhat not Important Kém quan trọng	Neither Có thể quan trọng	Somewhat Important quan trọng	Very Important Rất quan trọng
Tangibles/ Phương Tiện Hữu Hình	1	2	3	4	5
1. Appearance/décor of the company's premises should be visually appealing/ (Trang trí bên ngoài câu lạc bộ bắt mắt)					
2. The company's brochures should be visually appealing / (Tài liệu in ấn quảng bá cho câu lạc bộ bắt mắt)					
3. Vessel should be highly suitable for diving/ (Tàu chở khách rất phù hợp cho dịch vụ lặn)					
4. Dive guide should have a neat appearance/ (Hướng dẫn viên có trang phục gọn gàng chỉnh tề)					
5. Company should have good facilities and equipment to cater for diver/ (Trang thiết bị lặn đủ tiêu chuẩn phục vụ khách đi lặn)					

Responsiveness/ Độ Đáp Ứng	1	2	3	4	5
6. The diving guide should give prompt service/ (Hướng dẫn viên phục vụ mau lẹ/nhanh chóng)					
7. Diving guide should be never too busy to respond/ (Hướng dẫn viên không để khách phải đợi lâu)					
8. Diving guide should be always willing to help divers/ (Hướng dẫn viên luôn sẵn lòng giúp đỡ khách)					
Assurance/ Độ Đảm Bảo	1	2	3	4	5
9. Diving guide should consider divers best interests at heart/ (Hướng dẫn viên tận tâm phục vụ khách)					
10. Diving guide should always keep customer informed/ (Hướng dẫn viên luôn cập nhật thông tin cho khách)					
11. Diving guide should make divers feel secure/ (Hướng dẫn viên tạo cảm giác an toàn cho khách)					
12. Dive tour operators should have no compromise on safety/ (Điều hành tour lặn không ảnh hưởng/làm hại đến an toàn của khách)					
13. Diving guide should be knowledgeable/ (Hướng dẫn viên tour lặn có kiến thức tốt)					

14. Behavior of diving guide should give confidence to diver/ (Thái độ của hướng dẫn viên làm khách cảm thấy tự tin vào bản thân)					
15. Diving guide should be consistently courteous/ (Hướng dẫn viên lịch sự/nhã nhặn)					
Reliability/ Độ Tin Cậy	1	2	3	4	5
16. Diving guide should demonstrate right at the first time/ (Hướng dẫn viên làm thao tác đúng ngay lần đầu)					
17. Diving guide should deliver service to divers on time/ (Hướng dẫn viên phục vụ khách kịp thời)					
18. Diving guide should interest in solving diver problems/ (Hướng dẫn viên luôn tận tình giúp khách giải quyết vấn đề)					
Empathy/ Độ Đồng Cảm	1	2	3	4	5
19. Diver should be felt more convenient than on own/ (Khách cảm thấy thuận lợi hơn khi đến với dịch vụ tour lặn này so với tự đi lặn)					
20. Dive tour operator should understand the specific needs of divers/ (người tổ chức tour hiểu được nhu cầu của khách)					

21. Divers should be treated like special individuals/ (Khách được phục vụ như những cá nhân đặc biệt)					
22. Diving guide should give an individualized attention to divers/ (Hướng dẫn viên luôn để ý quan tâm đến từng khách)					
23. There should be no excessive waiting time for diver/ (Khách không phải chờ lâu)					
24. Diving guide should attend to diver's needs promptly/ (Hướng dẫn viên giúp đỡ khách nhanh chóng khi khách có nhu cầu)					
25. Diving guide should make dive more enjoyable / (Hướng dẫn viên cho khách trải nghiệm lặn biển thú vị hơn)					

Finish part I, the next parts should be answered after the dive, thank you!

Part II: Evaluate service provided by dive operator/ Đánh giá dịch vụ cung cấp bởi câu lạc bộ lặn.

Performance/ Dịch vụ Cung Cấp					
	Not at all satisfied Không Hài Lòng	Somewhat not satisfied Kém hài lòng	Neutral Bình thường	Somewhat Satisfied Hài lòng	Very satisfied Rất hài lòng
Tangibles/ Phương Tiện Hữu Hình					
26. Appearance/décor of the company's premises were visually appealing/ (Trang trí bên ngoài câu lạc bộ bắt mắt)					
27. The company's brochures were visually appealing/ (Tài liệu in ấn quảng bá cho công ty bắt mắt)					
28. Vessel was highly suitable for diving/ (Tàu chở khách rất phù hợp cho dịch vụ lặn)					
29. Dive guide had a neat appearance/ (Hướng dẫn viên có trang phục gọn gàng chỉnh tề)					
30. Company had good facilities and equipment to cater for diver/ (Trang thiết bị lặn đủ tiêu chuẩn phục vụ khách đi lặn)					

Responsiveness/ Độ Đáp Ứng	1	2	3	4	5
31. The diving guide gave prompt service/ (Hướng dẫn viên phục vụ mau lẹ/nhanh chóng)					
32. Diving guide was never too busy to respond/ (Hướng dẫn viên không để khách phải đợi lâu)					
33. Diving guide was always willing to help divers/ (Hướng dẫn viên luôn sẵn lòng giúp đỡ khách)					
Assurance/ Độ Đảm Bảo	1	2	3	4	5
34. Diving guide considered divers best interests at heart/ (Hướng dẫn viên tận tâm phục vụ khách)					
35. Diving guide always kept customer informed/ (Hướng dẫn viên luôn cập nhật thông tin cho khách)					
36. Diving guide made divers feel secure/ (Hướng dẫn viên tạo cảm giác an toàn cho khách)					
37. Dive tour operators had no compromise on safety/ (Điều hành tour lặn không ảnh hưởng/làm hại đến an toàn của khách)					

38. Knowledgeable diving guide/ (Hướng dẫn viên tour lặn có kiến thức tốt)					
39. Behavior of diving guide gave confidence to diver/ (Thái độ của hướng dẫn viên làm khách cảm thấy tự tin vào bản thân)					
40. Diving guide was consistently courteous/ (Hướng dẫn viên lịch sự/nhã nhặn)					
Reliability/ Độ Tin Cậy	1	2	3	4	5
41. Diving guide got thing right at the first time/ (Hướng dẫn viên làm thao tác đúng ngay lần					
42. Diving guide delivered service to divers on time/ (Hướng dẫn viên phục vụ khách kịp thời)					
43. Diving guide was interest in solving diver problems/ (Hướng dẫn viên luôn tận tình giúp khách giải quyết vấn đề)					
Empathy/ Độ Đồng Cảm	1	2	3	4	5
44. Diver felt more convenient than on own/ (Khách cảm thấy thuận lợi hơn khi đến với dịch vụ tour lặn này so với tự					

45. Dive tour operator understood the specific needs of divers/ (người tổ chức tour hiểu được nhu cầu của khách)					
46. Divers were treated like special individuals/ (Khách được phục vụ như những cá nhân đặc)					
47. Diving guide gave an individualized attention to divers/ (Hướng dẫn viên luôn để ý quan tâm đến từng khách)					
48. There was no excessive waiting time for diver/ (Khách không phải chờ lâu)					
49. Diving guide attended to diver's needs promptly/ (Hướng dẫn viên giúp đỡ khách nhanh chóng khi khách có nhu cầu)					
50. Diving guide made dive more enjoyable/ (Hướng dẫn viên cho khách trải nghiệm lặn biển thú vị hơn)					

For the following questions, tick (✓) one that matches best with your opinion/

Chọn một phương án trả lời phù hợp nhất với bạn.

Part III: Demographic Information

51. What is your gender? / Giới tính của bạn?

☐ Male/ Nam

☐ Female/ Nữ

52. What is your age (year old)? / Tuổi của bạn?

☐ Under 18/ Dưới 18

☐ 36 – 45

☐ 19 – 25

☐ 46 – 59

☐ 26 – 35

☐ Above 60/ Trên 60

53. What is your highest education level? / Trình độ học vấn cao nhất?

☐ Under high school/ Dưới trung học phổ thông

☐ High school/ Trung học phổ thông

☐ College or Bachelor degree/ Cao đẳng hoặc đại học

☐ Master degree/ Thạc sĩ

☐ Above master degree/ Trên thạc sĩ

54. What is your occupation? / Nghề nghiệp của bạn?

☐ Student/ Sinh viên

☐ Business owner/manager/ Chủ sở hữu kinh doanh hoặc cấp bậc quản lý

☐ Government/firm officer/ Nhân viên công sở

☐ Labor/ Công nhân

☐ Unemployed/ Thất nghiệp

☐ Others/ Khác (please specific/ Xin ghi rõ).....

For the following questions, tick (✓) one that matches best with your opinion/

Chọn một phương án trả lời phù hợp nhất với bạn.

Part III: Demographic Information

51. What is your gender? / Giới tính của bạn?

☐ Male/ Nam

☐ Female/ Nữ

52. What is your age (year old)? / Tuổi của bạn?

☐ Under 18/ Dưới 18

☐ 36 – 45

☐ 19 – 25

☐ 46 – 59

☐ 26 – 35

☐ Above 60/ Trên 60

53. What is your highest education level? / Trình độ học vấn cao nhất?

☐ Under high school/ Dưới trung học phổ thông

☐ High school/ Trung học phổ thông

☐ College or Bachelor degree/ Cao đẳng hoặc đại học

☐ Master degree/ Thạc sĩ

☐ Above master degree/ Trên thạc sĩ

54. What is your occupation? / Nghề nghiệp của bạn?

☐ Student/ Sinh viên

☐ Business owner/manager/ Chủ sở hữu kinh doanh hoặc cấp bậc quản lý

☐ Government/firm officer/ Nhân viên công sở

☐ Labor/ Công nhân

☐ Unemployed/ Thất nghiệp

☐ Others/ Khác (please specific/ Xin ghi rõ).....

55. What is your nationality? / Quốc tịch của bạn?

- ☐ Vietnamese/ Việt Nam
- ☐ Russian/ Nga
- ☐ Korean/ Hàn Quốc
- ☐ Chinese/ Trung Quốc
- ☐ American/ Mỹ
- ☐ Japanese/ Nhật
- ☐ Others/ Khác (please specific/ Xin ghi rõ).....

Part IV: Diving experience/ Kinh nghiệm đi lặn

56. How many times did you dive in Nha Trang before?/ Bạn đã đi lặn tại Nha Trang bao nhiêu lần

- ☐ Never before/ Chưa bao giờ
- ☐ This is my second time/ Đây là lần thứ hai
- ☐ I have dived here more than two time/ Trên hai lần

57. This diving activity is/ Với bạn, việc đi lặn này là...

- ☐ Main purpose for your trip to Nha Trang/ Mục đích chính khi đến Nha Trang
- ☐ Just a part of your trip to Nha Trang/ Một phần của chuyến du lịch đến Nha Trang
- ☐ You just decide to dive after arriving/ Bạn quyết định đi lặn sau khi đến Nha Trang

58. Do you have diving certificate? Bạn có chứng chỉ lặn không?

- ☐ Yes/ Có
- ☐ No / Không (Please skip question 9 and 10/ Không trả lời câu hỏi số 59 và 60)

59. What diving organization does your certificate belongs to?/ Chứng chỉ lặn của bạn được cấp bởi?

- ☐ PADI
- ☐ SSI
- ☐ Others/Khác (please specific/ Xin ghi rõ).....

60. What is your dive level?/ Trình độ lặn của bạn theo chứng chỉ

- ☐ Master (Advance) level
- ☐ Open water level
- ☐ On learning course
- ☐ Other.....

THANK YOU VERY MUCH!/ CẢM ƠN QUÝ KHÁCH RẤT NHIỀU!



APPENDIX B

SPSS Output

Reliability of Variables

Tangibles

Reliability Statistics

Cronbach's Alpha	N of Items
.838	5

Responsiveness

Reliability Statistics

Cronbach's Alpha	N of Items
.898	3

Assurance

Reliability Statistics

Cronbach's Alpha	N of Items
.900	7

Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.803	3

Empathy

Reliability Statistics

Cronbach's Alpha	N of Items
.921	7

Tangibles Dimension

Importance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IT1	392	1	4	2.14	.791
IT2	392	1	5	2.87	.897
IT3	392	1	5	3.10	.892
IT4	392	1	4	2.02	.811
IT5	392	1	5	3.61	1.026
Valid N (listwise)	392				

Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PT26	392	1	5	2.43	.952
PT27	392	1	5	2.67	.928
PT28	392	1	5	2.76	1.091
PT29	392	1	5	3.20	1.414
PT30	392	1	5	3.80	1.074
Valid N (listwise)	392				

Responsiveness Dimension

Importance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IRES6	392	1	5	3.70	.996
IRES7	392	1	5	3.30	1.084
IRES8	392	1	5	3.02	.999
Valid N (listwise)	392				

Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PRES31	392	1	5	3.45	1.102
PRES32	392	1	5	3.16	1.084
PRES33	392	1	5	3.21	1.036
Valid N (listwise)	392				

Assurance Dimension

Importance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IA9	392	3	5	4.16	.697
IA10	392	2	5	3.75	.829
IA11	392	3	5	4.70	.491
IA12	392	3	5	4.65	.553
IA13	392	2	5	4.10	.740
IA14	392	2	5	4.10	.751
IA15	392	2	5	3.60	.799
Valid N (listwise)	392				

Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PA34	392	1	5	3.89	.911
PA35	392	2	5	3.92	.871
PA36	392	3	5	4.50	.678
PA37	392	2	5	4.20	1.067
PA38	392	1	5	3.78	.945
PA39	392	1	5	3.65	1.055
PA40	392	2	5	3.54	.824
Valid N (listwise)	392				

Reliability Dimension

Importance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IREL16	392	2	5	3.77	.808
IREL17	392	1	5	3.21	.840
IREL18	392	2	5	3.60	.846
Valid N (listwise)	392				

Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PREL41	392	1	5	2.93	.952
PREL42	392	1	5	2.66	.964
PREL43	392	2	5	3.80	.852
Valid N (listwise)	392				

Empathy Dimensions

Importance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IE19	392	2	5	3.63	.814
IE20	392	2	5	3.80	.807
IE21	392	1	5	2.90	.891
IE22	392	1	5	3.10	.908
IE23	392	2	5	4.21	.792
IE24	392	2	5	3.75	.815
IE25	392	2	5	4.17	.774
Valid N (listwise)	392				

Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PE44	392	2	5	4.57	.701
PE45	392	2	5	3.45	.805
PE46	392	2	5	4.10	.882
PE47	392	1	5	3.68	1.142
PE48	392	2	5	3.70	1.010
PE49	392	2	5	4.30	.685
PE50	392	2	5	4.60	.686
Valid N (listwise)	392				

Paired sample T-test

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 IT1	2.14	392	.791	.040
PT26	2.43	392	.952	.048
Pair 2 IT2	2.87	392	.897	.045
PT27	2.67	392	.928	.047
Pair 3 IT3	3.10	392	.892	.045
PT28	2.76	392	1.091	.055
Pair 4 IT4	2.02	392	.811	.041
PT29	3.20	392	1.414	.071

Pair 5	IT5	3.61	392	1.026	.052
	PT30	3.80	392	1.074	.054
Pair 6	IRES6	3.70	392	.996	.050
	PRES31	3.45	392	1.102	.056
Pair 7	IRES7	3.30	392	1.084	.055
	PRES32	3.16	392	1.084	.055
Pair 8	IRES8	3.02	392	.999	.050
	PRES33	3.21	392	1.036	.052
Pair 9	IA9	4.16	392	.697	.035
	PA34	3.89	392	.911	.046
Pair 10	IA10	3.75	392	.829	.042
	PA35	3.92	392	.871	.044
Pair 11	IA11	4.70	392	.491	.025
	PA36	4.50	392	.678	.034
Pair 12	IA12	4.65	392	.553	.028
	PA37	4.20	392	1.067	.054
Pair 13	IA13	4.10	392	.740	.037
	PA38	3.78	392	.945	.048
Pair 14	IA14	4.10	392	.751	.038
	PA39	3.65	392	1.055	.053
Pair 15	IA15	3.60	392	.799	.040
	PA40	3.54	392	.824	.042
Pair 16	IREL16	3.77	392	.808	.041
	PREL41	2.93	392	.952	.048
Pair 17	IREL17	3.21	392	.840	.042
	PREL42	2.66	392	.964	.049
Pair 18	IREL18	3.60	392	.846	.043
	PREL43	3.80	392	.852	.043
Pair 19	IE19	3.63	392	.814	.041
	PE44	4.57	392	.701	.035
Pair 20	IE20	3.80	392	.807	.041
	PE45	3.45	392	.805	.041
Pair 21	IE21	2.90	392	.891	.045
	PE46	4.10	392	.882	.045
Pair 22	IE22	3.10	392	.908	.046
	PE47	3.68	392	1.142	.058
Pair 23	IE23	4.21	392	.792	.040
	PE48	3.70	392	1.010	.051
Pair 24	IE24	3.75	392	.815	.041
	PE49	4.30	392	.685	.035
Pair 25	IE25	4.17	392	.774	.039
	PE50	4.60	392	.686	.035

