

ขั้นตอนการพัฒนา Marina ในประเทศไทยกรณีศึกษาภูเก็ตภูเก็ตและรอยัลภูเก็ต Marina



บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)  
เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย

The abstract and full text of theses from the academic year 2011 in Chulalongkorn University Intellectual Repository (CUIR)  
are the thesis authors' files submitted through the University Graduate School.

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาเอกพัฒนศาสตรมหาบัณฑิต  
สาขาวิชาการพัฒนาที่อยู่อาศัยและอสังหาริมทรัพย์ ภาควิชาเคหการ  
คณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย  
ปีการศึกษา 2559  
ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

Marina Development Process in Thailand Case Study Phuket Boat Lagoon and Royal  
Phuket Marina

Mr. Vikrom Sachabhum



A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Housing Development Program in Housing and Real Estate

Development

Department of Housing

Faculty of Architecture

Chulalongkorn University

Academic Year 2016

Copyright of Chulalongkorn University

Thesis Title	Marina Development Process in Thailand Case Study Phuket Boat Lagoon and Royal Phuket Marina
By	Mr. Vikrom Sachabhum
Field of Study	Housing and Real Estate Development
Thesis Advisor	Associate Professor Trirat Jarutach

---

Accepted by the Faculty of Architecture, Chulalongkorn University in  
Partial Fulfillment of the Requirements for the Master's Degree

.....Dean of the Faculty of Architecture  
(Associate Professor Doctor Pinraj Khanjanusthiti)

THESIS COMMITTEE

.....Chairman  
(Professor Doctor Sarich Chotipanich)

.....Thesis Advisor  
(Associate Professor Trirat Jarutach)

.....Examiner  
(Associate Professor Manop Bongsadadt)

.....Examiner  
(Doctor Kwanrat Suanpong)

.....External Examiner  
(Doctor Boonying Kongarchapatara)

วิกรม สัจจะภูมิ : ขั้นตอนการพัฒนา มารีน่า ในประเทศไทยกรณีศึกษาภูเก็ตโบ๊ทลากูนและรอยัล  
 ภูเก็ตมารีน่า (Marina Development Process in Thailand Case Study Phuket Boat  
 Lagoon and Royal Phuket Marina) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ไตรรัตน์ จารุทัศน์,  
 100 หน้า.

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาและวิเคราะห์ขั้นตอนการพัฒนา มารีน่า ในประเทศไทยรวมถึง  
 วิเคราะห์ธุรกิจมารีน่าในประเทศไทย วิทยานิพนธ์นี้จะสำรวจปัจจัยหลักที่มีส่วนทำให้การพัฒนา มารีน่า ใน  
 ประเทศไทยเป็นไปได้อย่างมีประสิทธิภาพและยั่งยืน

เนื่องจากประเทศไทยมีภูมิศาสตร์ทางทะเลที่ติดกับทั้งอ่าวไทยและทะเลอันดามันจึงทำให้ประเทศ  
 ไทยนั้นได้เปรียบในเรื่องทำเลสถานที่ตั้ง อีกทั้งประเทศไทยยังมีพื้นที่ส่วนที่ติดชายฝั่งทะเลยาวมากกว่าสอง  
 พันกิโลเมตร รวมไปถึงสภาพภูมิอากาศที่พร้อมสำหรับการท่องเที่ยวเรือเกือบตลอดทั้งปี ทำให้อุตสาหกรรมมารีน่า  
 นั้นเป็นที่น่าจับตามองจากนักลงทุนทั้งในและนอกประเทศ

จากผลสำรวจปัจจุบันทางหน่วยงานรัฐไม่ว่าจะเป็นกระทรวงการท่องเที่ยวและองค์การการ  
 ท่องเที่ยวแห่งประเทศไทยได้ร่วมมือกันเพื่อ ส่งเสริมประเทศไทยให้เป็นศูนย์กลางมารีน่าในทวีปเอเชีย ทั้งนี้  
 ทาง กรมเจ้าท่าได้เข้ามามีส่วนร่วมในการอำนวยความสะดวกให้กับนักท่องเที่ยวที่นำเรือเข้ามาในน่านน้ำของ  
 ประเทศไทยเพื่อให้สอดคล้องกับนโยบายของทางรัฐบาลที่จะตั้งให้ประเทศไทยให้เป็นศูนย์กลางของมารีน่า  
 ในทวีปเอเชีย

งานวิจัยนี้ได้แยกแยะองค์ประกอบที่สำคัญเพื่อวิเคราะห์รูปร่างการพัฒนา มารีน่า ที่มีประสิทธิภาพ  
 ในประเทศไทย โดยงานวิจัยนี้ได้อ้างอิงและวิเคราะห์สองมารีน่าหลักในประเทศไทยมาเป็นกรณีศึกษา  
 คือ ภูเก็ตโบ๊ทลากูนและรอยัลภูเก็ตมารีน่า รวมไปถึงขั้นตอนและการสร้างแนวทางการบริหารมารีน่า  
 แบบเดิมและแบบใหม่เข้าด้วยกัน พบว่าปัจจุบันการพัฒนา มารีน่า ส่วนใหญ่มาจากภาคเอกชน ดังนั้นการจะ  
 พัฒนา มารีน่า ในประเทศไทยอย่างยั่งยืนจะต้องได้รับการสนับสนุนอย่างจริงจังจกภาครัฐและองค์กรท้องถิ่น  
 นอกจากนี้การพัฒนา มารีน่า จะต้องผสมผสานระหว่างท่าจอดเรือและส่วนของอสังหาริมทรัพย์ให้มีความ  
 สอดคล้องซึ่งกันและกัน เพื่อให้ได้ผลตอบแทนที่คุ้มค่ากว่าการพัฒนาท่าจอดเรือเพียงอย่างเดียวซึ่งสอดคล้อง  
 กับ CA Brebbia & Sciutto ที่ได้กล่าวไว้ในปี 2002 ว่า “ปรัชญาในการก่อสร้าง มารีน่า คือสวัสดิการของคน  
 และสิ่งแวดล้อม ซึ่งการพัฒนา มารีน่า จะต้องมีข้อกำหนดที่มีคุณภาพสูง เพื่อรองรับการใช้งานสาธารณูป  
 โภคและส่วนรวม”

ภาควิชา	เคหการ	ลายมือชื่อนิสิต .....
สาขาวิชา	การพัฒนาที่อยู่อาศัยและ อสังหาริมทรัพย์	ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

ปีการศึกษา 2559

# # 5873604225 : MAJOR HOUSING AND REAL ESTATE DEVELOPMENT

KEYWORDS: MARINA DEVELOPMENT / SUSTAINABLE / MIX-USE / EIA-ENVIRONMENTAL IMPACT ASSESSMENT / PPP- PUBLIC PRIVATE PARTNERSHIP DEVELOPMENT / PESTAL ANALYSIS / SWOT ANALYSIS

VIKROM SACHABHUM: Marina Development Process in Thailand Case Study Phuket Boat Lagoon and Royal Phuket Marina. ADVISOR: ASSOC. PROF. TRIRAT JARUTACH, 100 pp.

This thesis explored all the principal factors that contribute to an effective Marina Development Process in Thailand in line with the Ministry of Tourism and Sports efforts in expanding Thailand's marine tourism industry and turning the country into the leading marine hub in the region. Geographically speaking, Thailand has the advantage of having both the location and the climate conducive to being a leading marina development player. Both in the Andaman Sea and the Gulf of Thailand, tourism is already one of the main driving sectors of the economy and the marina industry sector is boosting its growth further. The demand for marine products has been on steady increase because of the government's tax exemption policy on leisure vessels; a policy first implemented in 2004 that reduces the import duty from 245% to 0%. As a result, the number of registered yachts in Thailand rose to over 350%, according to the Department of Customs of Thailand. Thailand is also seeing the rise of the developed yachting industry, especially in the existing four main marinas that are mostly concentrated on the Andaman coast. Strategically, Thailand's potential to become a major marina hub of Southeast Asia is high.

This report will explore the key elements and cultural aspects that influence how marinas are developed and operated by international marina consulting companies in Thailand. For the purposes of this research, Phuket Boat Lagoon and Royal Phuket Marina were used for case studies -- to provide a clear illustration and useful insight regarding the effectiveness and deficiency of current Marina Development Process. The construction philosophy employed in these marinas suggests high regard for the welfare of people and the environment. The high quality of specifications followed in the areas for public use and the entire marina conform to stringent rules governing health, aesthetics, and environmentally friendly development.

CA Brebbia & Sciutto (2002) quotes "The marina's construction philosophy is the welfare of people and the environment. The high quality specifications, for the areas of public use and of the entire marina are founded on stringent rules governing health, aesthetics and environmentally friendly development". Having said that, for Thailand EIA plays the major role marina development stressing the importance of the welfare of the local people and the environment, a mechanism that can lead to a sustainable development.

Department: Housing  
Field of Study: Housing and Real Estate  
Development

Student's Signature .....

Advisor's Signature .....

Academic Year: 2016

## ACKNOWLEDGEMENTS

In the preparation of this thesis, I am profoundly indebted to the people who have supported me greatly throughout the master degree program. I am extremely grateful to each and every one of the persons mentioned below. I am very privileged to have been accepted and supervised by Associate Professor Trirat Jarutach and Associate Professor Manop Bongsadadt.

- Khun Boon Yongsakul
- Khun Sitt Polcharoen
- Khun Wirachai Pranveerapaibool
- Khun Matthew P.Na Nagara
- Dr. Paithoon Monpanthong

Finally I would like to extend my appreciation to all the members of the thesis exam committees for lending me their time and giving valuable suggestions. I am also indebted to administrative staff at the Housing Department in Chulalongkorn University for keeping me inform and updated and for their assistance in the thesis submission processes. Lastly, I would like to thank all my C28x classmates and my family for their big support throughout the pursuit of my degree.

## CONTENTS

	Page
THAI ABSTRACT.....	iv
ENGLISH ABSTRACT.....	v
ACKNOWLEDGEMENTS .....	vi
CONTENTS.....	vii
LIST OF TABLES .....	xi
LIST OF FIGURES.....	xii
Chapter 1: Introduction .....	1
1.1 Background and Importance .....	1
1.2 Research Questions .....	2
1.3 Research Objectives.....	2
1.4 Scope of Thesis.....	2
1.5 Thesis Primary Agreements.....	3
1.5.1 Research Limitation.....	3
1.6 Terminology.....	4
1.7 Research Benefits and Findings.....	7
Chapter 2: Literature Review.....	9
2.1 Marina.....	14
2.2 Tourism .....	16
2.3 Marine Tourism .....	17
2.4 Method of Procedure - PESTEL Analysis .....	18
2.5 SWOT Analysis.....	21

	Page
2.6 Variety of Marina Infrastructure.....	22
2.7 Marina around the World.....	23
Figure 2.2 - Marina World Wide .....	23
2.8 Blue Flag Campaign .....	23
2.9 Established Markets .....	25
2.10 Marina in South East Asia .....	26
2.11 Related Research .....	29
Chapter 3: Research Method .....	32
3.1 Scope of Research .....	33
3.2 Research Framework .....	34
3.3 Conceptual Framework.....	35
3.3.1 Objective Explanation.....	36
3.4 Research Method Framework .....	37
3.5 Population and Sampling.....	38
3.6 Data Collection Methods.....	39
3.6.1 Qualitative and Quantitative Data.....	40
3.7 Data Analysis Methods – Secondary Source Data.....	41
3.8 Reporting Methods.....	42
3.9 Research Implementation Time Frame .....	42
Chapter 4 – Case Studies.....	43
4.1 Overview of Context.....	43
4.2 Data of selected Marina Samplings .....	44
4.3 Case Study – A.....	45



	Page
4.3.1 Case Study – A .....	52
4.4 Case Study – B.....	53
4.4.1 Case Study – B .....	55
4.5 Case Study – Marina Overview Physical Setting .....	57
4.6 Case Study – Marina Overview Academic Perception.....	58
4.7 Chapter Summary .....	59
4.8 Business Model – Development Process .....	61
4.9 Interviewee Management Levels.....	62
Chapter 5 – Case Studies Analysis.....	65
5.1 Summary on first research objective.....	67
5.1.1 Sustainable Development.....	68
5.2 Summary on second research objective.....	70
5.3 Development Concept Macro View - PESTLE Analysis.....	72
5.4 Development Concept Micro View – SWOT Analysis.....	77
5.5 Limitation of Existing Marina Industry in Thailand.....	78
5.6 Marina Development Process .....	80
Chapter 6 – Conclusion & Recommendations.....	82
6.1 Overall Research Finding.....	83
6.1.1 Overall Research Finding Marina Financial.....	83
6.2 Research finding – Marina in Thailand compared to others.....	86
6.3 Further Study.....	86
6.4 Recommendation.....	88
REFERENCES.....	89

	Page
Interview Questions.....	95
Interviewees.....	97
Khun Boon Yongsakul.....	97
Khun Sitt Polcharoen.....	98
Khun Wirachai Pranveerapaibool.....	98
VITA.....	100



## LIST OF TABLES

Table 1.1 - Terms and Definitions.....	5
Table 2.1 - Concept and Theories – Research Objectives.....	13
Table 2.2 – SWOT Chart.....	21
Table 2.3 – Established Marina in Thailand.....	28
Table 2.4 – Related Researches on Marina.....	29
Table 3.1 – Research Framework Table.....	34
Table 3.2 – Research Tool Table.....	38
Table 3.3 – Population & Sampling.....	38
Table 4.1– Marina Samplings Fact Sheet.....	45
Table 4.2 – Interview Management Breakdown.....	62
Table 5.1 – Research Framework.....	65
Table 5.2 – PESTEL Analysis for Marina Development in Thailand.....	76
Table 6.1 – Marina Comparison.....	86

## LIST OF FIGURES

Figure 1.1– Research Benefit Workflow .....	8
Figure 2.1 – PESTEL Analysis .....	19
Figure 2.2 - Marina World Wide .....	23
Figure 2.3 – Singapore Marina .....	25
Figure 2.4 – Hong Kong Marina .....	26
Figure 2.5 – Marina in South East Asia .....	27
Figure 2.6 – Marina in Thailand .....	28
Figure 3.1 – Conceptual Workflow .....	36
Figure 3.2 – Research Method WorkFlow .....	37
Figure 4.1 – Phuket Boat Lagoon .....	46
Figure 4.2 – Example of U-Crane in Phuket Boat Lagoon.....	51
Figure 4. 3– Aseanarean Region Alliance.....	53
Figure 4.4 – Visited Yachts by Registered Countries.....	59
Figure 4.5 – Most used Facilities in Marina.....	61
Figure 5.1 – Sustainable Development .....	68
Figure 6.1 - Thailand Coastline.....	84

## ACRONYMS

PPP	Public Private Partnership Development Scheme
TOD	Transit Oriented Development
EIA	Environmental Impact Assessment
GMDSS	Global Maritime Distress and Safety System
ICOMIA	International Council for Marine Industry Association
IWMC	International World Marina Conference
MIA	Marina Industries Association
MTC	Maritime Traffic Centre
M/Y	Motor Yacht
S/Y	Sailing Yacht
SEA	Strategic Environmental Assessment
WTO	World Tourism Organisation
12-25m	Yacht
25-45m	Super-Yacht
45-121m	Mega-Yacht
>121m	Giga-Yacht



## Chapter 1: Introduction

### 1.1 Background and Importance

The inspiration behind this research springs purely from the love and passion for boats and new developments in the marina sector. In the Gulf of Thailand there is only one main established marina: the Ocean Marina in Pattaya. In recent years, the Thai government has been turning their attention to maritime tourism, and has been working tirelessly to promote the country as the marina hub of Asia, according to the Ministry of Tourism & Sports of Thailand.<sup>1</sup> Therefore, this research includes focus on the types of marinas not only around Thailand's neighboring countries but also in other established marinas around the world. It studies and takes a closer look at the overall processes in these marinas, including all their facilities and services as well as the professionalism involved in running them.

Specifically, this thesis will explore all the principal factors that contribute to effective Marina Development in Thailand as the country is expanding its marine tourism industry and turning the kingdom into the leading marine hub in the region as spearheaded by the Ministry of Tourism and Sports.

Geographically, Thailand has an advantage. With the combination of great location and the tropical climate at both the Andaman Sea and the Gulf of Thailand, tourism -- already being one of the main driving forces of the economy -- is fuelling the rise of the marina industry. Demand for marine products has been steadily increasing because of the government's tax exemption policy on leisure vessels, which means foreigners are now allowed to bring in their vessels to the country. The policy, first implemented in 2004, has reduced import duty from 245% to 0%<sup>1</sup>. The number of registered yachts has also risen -- to over 350% -- according to the Department of Customs of Thailand. Thailand is also seeing the rise of the developed yachting industry, especially at the four existing main marinas on the Andaman Coast. Thailand also has well-respected shipyards for relatively large DWT

---

<sup>1</sup> Investment, T. B. o. (2012). Thailand Marine Destination of Asia.

(Dead Weight Tonnage). Strategically -- with high quality products already available, highly skilled labour, and an ever-growing yachting industry – Thailand’s potential to become a marina hub within Southeast Asia is very high.

### **1.2 Research Questions**

1. What are the types of marinas in Thailand and what processes are involved in developing them?
2. What improvements are needed in to meet the growing demand of the marina industry in Thailand?

### **1.3 Research Objectives**

1. Develop a sustainable process for developing a marina and determine the best managing style for the marina sector in Thailand.
2. To illustrate the value of marinas as we compare Thailand’s marina sector with those in other countries.

The Marina Industry in Thailand is still relatively young but it is growing rapidly, thanks to the influence of neighboring countries such as Singapore, and the advent of marine tourism. The government intends to development the sector further, to boost the marine tourism industry in Thailand, and to make Thailand Southeast Asia’s maritime hub but there are several other factors to consider – with the environmental issues on top of the list – for the sector in Thailand to expand and benefit all. The best model for marina development that best fits Thailand is the mix-use concept of development. Lastly, as part of this research, we will be exploring the gateways of community issues within the framework of general marina development basics.

### **1.4 Scope of Thesis**

This research will identify the important key elements that help shape, outline, and build an effective Marina Development Process in Thailand while at the same time attempting to raise the standards in the country’s marina industry. The report will also explore other key elements and cultural aspects that influence how

marinas in Thailand are developed and operated by international consulting companies. The five main marina operators: Ocean Marina Yacht Club, Phuket Boat Lagoon, Royal Phuket Marina, Ao Po Grand Marina, and Port Takola Yacht Marina & Boatyard, will be used for case studies to provide a clear illustration and useful insights regarding the effectiveness and deficiency of the current Marina Development outlook<sup>2</sup>. Finally, the report will provide a recommendation on Marina Development procedures that will help generate new business principles to guide those managing the Marina Industry sector in Thailand.

### **1.5 Thesis Primary Agreements**

In accordance with the current marine tourism outlook this study will merely oversee the present conditions in Thailand's marina industry and present information on how to build an industry benchmark despite the lack of available resources as well as the inherent challenges along the way, such as getting to the right resource person for correct information in spite of confidentiality issues. This research will only provide an overview of the marina sector throughout the country as they compare with established marinas in neighboring countries.

Identify current settings of marina tourism and the infrastructure within the country. Analyse the importance of the cruising patterns across Southeast Asia. Gather information and plans for marina development from members of the local government. Finally, conduct a marina feasibility analysis for Thailand along with recommendations.

#### **1.5.1 Research Limitation**

The degree of safety and the risk components for people accessing the locations are among the main decisive factors in leisure sailing. There are only eight established marinas in Thailand and sources to get in touch with them are limited. Most of the established marinas are run by families with inherited land or by major international investors involved in real estate as core business. It is an untouched

---

<sup>2</sup> Robinson, D. (2015). "Thailand Looks to Boost its Marine Tourism Industry." Retrieved 12-08-2016, from <http://digital.kk-superyachts.com/h/i/81054915-thailand-looks-to-boost-its-marine-tourism-industr>.



territory with a high entrance barrier to such industry for an outsider, very few scholars have conducted research on such topic and those who have done so mostly focus mainly on yacht tourism management. Therefore, this thesis relies on a synthesis of secondary sources such as established marinas and international research documents, media publications, and baseline data (from personal communication). Another factor in selecting these marina is both share the same water way entrance with Phuket Boat Lagoon being the first established marina in Thailand. Because of the over demand in the marina industry and the mutual respect Royal Phuket Marina was able to set up its project right next door. Lastly, reason for selecting both marina is because both are in-land marina and faces different obstacles during development process because Phuket Boat Lagoon during their development did not require an EIA approval while Royal Phuket Marina developed their project when EIA was implemented as law already. All literature research documents prepared for this thesis are in English, which will help achieve a broader information spectrum.

### **1.6 Terminology**

To ensure that all terms and definitions used in this thesis are understood, all relevant terminology has been included in the table below.

Table 1.1 - Terms and Definitions

No.	Term	Definition
1.	Marina	The term 'marina' conceptualizes the idea of boats amongst people; marina is a place where small boats/yachts dock for a period of time and using the marina's facilities for resupplies, refueling or maintenance and repair. The layout of marina can differ depending on the size of land and port. Marina is an area or a dock for yachts and other small vessels for servicing unlike a port, which accommodates large cruise and cargo ships. Marinas are much smaller and catered for small luxury yachts. <sup>3</sup>
2.	Marine Tourism	It has been proven that Marine Tourism is not just fast emerging domestically but also it is the fastest growing tourism sector around the world <sup>4</sup> . Marine tourism has also grown in its diversity and by volume <sup>5</sup> . Coastal tourism and marine tourism are very much related and are developed in a parallel way. Coastal tourism emphasises a range of tourism, activities, and leisure that are held around the coastal areas, either by land or by sea <sup>6</sup> .

---

<sup>3</sup> Business, S. "What is a marina." Retrieved 10-01-2017, from <http://www.myyachtregistration.com/3565/marina/#>.

<sup>4</sup> Miller, 1993; Cater & Cater, 2001, Hall, 2001M.L, M. (1993). "The Rise of Coastal and Marine Tourism. Ocean & Coastal Management." **21**: 183-199.

<sup>5</sup> NOAA (1998). "Year of the Ocean – Coastal Tourism and Recreation." Discussion paper, National Oceanic and Atmospheric Administration, Washington, DC, 1997.

<sup>6</sup> C.M, H. (2011). "Trends in ocean and coastal tourism: The end of the last frontier? Ocean and Coastal Management." **44**: 601-618.

Table 1.1: Terms and Definitions (Continue)

No.	Term	Definition
3.	Coastal Tourism Development	Would mainly focus on entertainment, accommodation, transport, food, and infrastructure that support coastal development, including retails businesses, marinas, and other directly related industries. Other activities include fishing, boating, snorkeling, diving, swimming, and marine based eco-tourism <sup>7</sup> .
4.	Marina Hub	A stop-off point where all major yachts and sailors from all over the world can dock their boats, a vision that would make Thailand the central cruising destination.
5.	Berths	A docking area for yachts, boats or any private ship.
6.	Cruising Patterns	Sailing routes captured by all sailors' behaviour throughout. Sailing destinations would merely be major attractions for marina tourism development (e.g. attractive islands).
7.	PESTEL	PESTEL Analysis is a tool used for development projects in the Political, Economic, Social, Technological, Environmental, and Legal sphere.

---

<sup>7</sup> Miller, 1993; Cater & Cater, 2001, Hall, 2001M.L, M. (1993). "The Rise of Coastal and Marine Tourism. Ocean & Coastal Management." 21: 183-199

Table 1.1: Terms and Definitions (Continue)

No.	Term	Definition
8.	Benchmark	A standard/point of reference against which things may be compared or assessed.
9.	Regatta	A series of boat races includes social and promotional activities usually hosted by yacht clubs, sailing associations around the world; dating to the first rowing regatta in 1733 (the Chester Regatta).
10.	Estuary	The mouth of a large river where the tide meets the stream.
11.	Yachts Types	A Yacht will be from 40-100 meters A Super Yacht will be from 100 to 200 meters A Mega Yacht will be from 200 to 400 meters A Giga Yacht will be anything beyond 400 meters

### 1.7 Research Benefits and Findings

Developing a benchmark of best practice in marina development in Thailand will highlight their importance to all beneficiaries: government, local authorities, and the private sector. Overall, the government will be able to use this research as a tool in partnering with the private sector for future marina developments while generating new jobs and income for the local communities and adding value to their land.

1. Demonstrate the importance of developing a marina sector in the country and confirm the geographical advantages of Thailand as Asia's Marina Hub.
2. Develop a standard process in expanding the marina sector in Thailand.



Figure 1.1– Research Benefit Workflow

Source: Vikrom Sachabhum

## Chapter 2: Literature Review

This research aims to produce a business development process that will be greatly significant to the state agencies that might need case studies for future coastal developments throughout the country. As part of theoretical analysis, PESTEL Analysis has been chosen as the best method for marina development in the coastal areas. The inspiration behind this thesis comes from personal passion and innate dedication to help make Thailand the Marina Hub of Asia, as well as in the strong desire to help develop an ecologically, economically and socially sustainable local community through marine tourism.

This literature will present the background of the marina development process from different continents and analyse some of the theoretical frameworks in their Marina Development approach. Concrete models of what constitutes an effective Marina profile and characteristics in Thailand will be presented as well. The Marina Industries Association of Australia (MIAA)<sup>8</sup> argues that there is lack of data about the profile and characteristics of marinas, which is a fundamental barrier to further research and development of the marina industries. Thus, further findings will identify research opportunities to expand our understanding of marinas in Thailand and the region. In addition, the report will also indicate the economic and employment value of the marina industry in Thailand. This report will help enhance our understanding of the Thailand marina sector significantly. New developments attempting to meet the demand can at times be in conflict with other demands for land use, especially nature conservation. Requirements to preserve space for natural and coastal habitats need to be properly recognized and carefully balanced. Apparently, this was not taken into account in the past, destroying the ecological and environment. Only recently has the Environmental Impact Assessment (EIA) really stepped up its assessments resulting in a more scientific consideration of such developments for marinas<sup>9</sup>. Most coastal sites in Thailand are important commercial

---

<sup>8</sup> Australia, M. I. A. o. (2010). "Marina Industries Association of Australia ". Retrieved 20-07-2016, from <https://www.marinas.net.au/>.

<sup>9</sup> Oldham, M. J. (1993). "'Residential Marinas.' The case of Hythe Marina Village ".

hubs for leisure and tourism. Thus, marina developments in the past lack the ecological and environmental concerns and without standard guidelines. What this research suggests is that proper development will not only those in the marina sectors succeed but also that to succeed in setting up standards, a proper Marina Development Process that is communicated throughout the industry is vital. It is important to balance the process of gathering information for new developments with the requirements to protect and conserve the environment<sup>9</sup>. Research has shown that investment in the development of marinas to accommodate increasing boat ownership and increased recreational opportunities has been extensive. Alongside this are the development of residential marinas, which provide apartments, housing for sale, or hotel facilities as a means to return of investments.

Marine Institute Foras na Mara points out that the decision to develop a successful marina facility involves several factors such as public demand, local authority consultation, public infrastructure, the environmentalists, and the prospect of profit from a complex surrounding marina hotel, residential, and retail components<sup>10</sup>. Developing a sustainable and environmentally managed marina that will last for generations should be the main objective of any marina development, especially of residential marinas. CA Brebbia & G Scuitto argues that recognising the environmental impact is of the utmost importance for any coastal development interventions involving marine constructions as well as during the operational phase<sup>11</sup>. Environmental considerations should be integrated into the constructions and operational phase of the marina and not just before or after the marina construction. During the research, it has proven that developing marina alone is not feasible due to the large scale of investment needed. Therefore, investors would seek return on their investment via other means, like building a residential marina.

---

<sup>10</sup> Mara, M. I. F. n. (2001). 'Guidelines for Planning a Marina Development' E. Union.

<sup>11</sup> Scuitto, C. B. G. (2002). "Marina development and environmental impact assessment requirements." the case of Lefkada Marina 'Maritime Engineering & Ports III'.

Studies have proven that most developers would use the mix-use concept approach in recent marina developments.

On the other hand, Marine Institute claims there are three key target groups that drive new marina developments: domestic tourists, overseas tourists, and local residential populations for sports<sup>12</sup>. Any new marina development that wants to achieve the most from its investment must integrate the development requirements of the marine leisure sector with those of the other sectors. This again brings us back to the mix-use concept of how to best develop the coastal resources to best-fit tourism and leisure. The research suggests that to create a positive image of the development as well as to ensure sustainable environmental management that will last throughout the life of the project, involving every party is vital

CA Brebbia & Sciutto has stated that the marina's construction philosophy gives high regard to the welfare of people and the environment. The high quality specifications used for the areas of public use and of the entire marina are founded on stringent rules governing health, aesthetics and environmentally friendly development<sup>13</sup>.

This research should help determine the size of the marina sector in Thailand, the number and types of operating marinas, the location of each marina (separating the two side -- Andaman Sea & Gulf of Thailand), the boat storage capacity at each site, and the main concerns of current marinas along with future marina development process for Thailand. Focus should be parallel to the sustainable development of the marina industry through the provision of official recognitions, education, research, and policy developments espoused by the Marina Industries Association of Australia in 2010. The Thailand Marine Department would

---

<sup>12</sup> Mara, M. I. F. n. (1999). 'A development strategy for Marine Leisure Infrastructure' E. Union.

<sup>13</sup> Sciutto, C. B. G. (2002). "Marina development and environmental impact assessment requirements." the case of Lefkada Marina 'Maritime Engineering & Ports III'.



have to work in parallel with the private sector in supporting particularly, all the regulatory and planning matters to make sure all the EIA standards for a sustainable development marina are met. Due to lack of data on each marina around Thailand, which is a similar issue in countries like Australia, it is essential to do further research and development for the marina industries. More research has to be conducted on the economic and employment values of marinas in Thailand for better understanding. At the same time, we were able to have an insider's interview on how a marina operates and how managing styles affect the developments, which should help us understand the marina sector in Thailand better. According to research by the Superyacht Intelligence<sup>14</sup>, with the 'increased movement of superyachts away from the typical and overcrowded cruising grounds, potential for newer facilities is in existence.'



---

<sup>14</sup> Superyacht, T. (2011). "Marina Capacity & Berth Analysis Report." The Superyacht Intelligence Quarterly.

This chapter would consist of two parts, namely theoretical part and the development of marinas in Thailand. These are explored along with the possibilities for marina development and the location of the possibilities for development and benefits to the local economy.

Table 2.1 - Concept and Theories – Research Objectives

Objectives	Concepts and theories related to research
<p>Develop a benchmark in sustainable process for developing a marina and determine best managing style for marina sector in Thailand.</p>	<ul style="list-style-type: none"> <li data-bbox="842 651 1386 1003">– Developing a marina requires analysing the country’s service characteristics and best way in marketing activities such as yachting in the country and the surrounding region as a whole. PESTEL Analysis is required to determine the opportunities and risk for marina.<sup>15</sup></li> <li data-bbox="842 1025 1386 1323">– Overall picture of the marina sector, growth of the superyacht fleet (yearly) around the world. New Marinas planning and executions, and the effects of the global economic crisis in marina development.<sup>16</sup></li> <li data-bbox="842 1346 1386 1592">– Latest marina developments worldwide; knowledge and tools to developing a marina in the global marina industry in the fast changing world.<sup>17</sup></li> <li data-bbox="842 1615 1386 1704">– Analyse facilities and improvements in existing marinas.</li> </ul>

15 E.Pinar Genc, N. G. (2006). "Assessment of Marinas in the Mediterranean and the position of Turkey.

16 Superyacht, T. (2011). "Marina Capacity & Berth Analysis Report." The Superyacht Intelligence quarterly.

17 Marinas, T. I. C. o. M. I. A.-W. (2016). "Future of Marinas in a Changing World."

Table 2.1: Concept and Theories – Research Objectives (Continue)

Objectives	Concepts and theories related to research
Illustrate the economic and employment values of marinas and understand the marina sector in Thailand compared to other countries in Asia.	<ul style="list-style-type: none"> <li>– Analyse travelling patterns of marine tourism and marine affairs. Coastal Zone Management<sup>18</sup></li> <li>– Overview of the public-private partnership scheme in development projects<sup>19</sup>.</li> <li>– Transforming Cities with Transit; Transit and Land-Use Integration for Sustainable Urban Development<sup>20</sup></li> <li>– Transport, Energy and Environmental Benefits of Intermodal Freight Strategies<sup>21</sup></li> </ul>

## 2.1 Marina

The term ‘marina’ conceptualises the idea of boats amongst people. Marina is a place where small boats/yachts dock for a period of time, using the marina’s facilities for resupplies, refuelling or maintenance and repair. The layout of marina can differ depending on the size of land and port. Marina is an area or a dock for yachts and other small vessels for servicing unlike a port, which accommodates large cruise and cargo ships. Having said that, marinas are much smaller and catered for

---

18 Ditton, M. M. L. a. R. (1986). "Travel, tourism and marine affairs. Coastal Zone Management " 14: 1-19.

19 Bank, A. D. (2007). "Public-Private Partnership Handbook."

20 I., H. S. R. C. a. K. (2013). "Transforming Cities with Transit; ." Transit and Land-Use Integration for Sustainable Urban Development.

21 Cooperation, A.-P. E. (2012). Transport, Energy and Environmental Benefits of Transit Oriented Development by Patrick Sherry.

small luxury yachts.<sup>22</sup> Depending on the size of marina the facilities available will vary for boat operators, which will also determine the layout of a marina. Marina is designed to cater specifically for small vessels and luxury yachts with good equipment and resources available for boaters including high-level security during their docking. Each marina will have a fee, which varies, depending on the location and types of services available. In other words, a marina is a manmade harbour for leisure purpose often equipped with seashore restaurants, shopping and walking areas, residential, hotels, and other tourism facilities as well as supply, repair, and provide maintenance services.

Below is a list of resources available in a marina for boat owners:<sup>22</sup>

- Refuelling Station
- Repair/Maintenance Services
- Washing Services
- Ship Chandlers
- Shops/Retails/Restaurants/Hotel
- Medical Clinics
- Parking for vehicles
- Boat Hoist
- Storage

---

<sup>22</sup> Business, S. (2016). "What is a marina." Retrieved 04-10-2016, from <http://www.myyachtregistration.com/3565/marina>.

## 2.2 Tourism

Tourism has always been an important source of income for Thailand. Marine tourism is a potentially lucrative sector that must be encouraged. Having said that, in the last few years we are seeing an increase in yachts visiting Thailand especially the Andaman Sea, which seems to suggest that luxury yachting is on the rise. Both the private and the government sector saw an opportunity at hand and would like to expand the marina capacity in Thailand to help promote it as the marina hub in the region<sup>23</sup>. The Thailand Marine Department, along with the private sector, has joined hands to position and transform the maritime sector and with my own personal interest in the subject, I decided to pursue research on this topic.

Tourism is considered the largest industry worldwide by the direct economic impact and numbers of contributors involved<sup>24</sup>. In general, international tourism back in 2012 totalled US\$1.035 billion, an overwhelming growth of 4% compared to 2011, according to the 'World Tourism Barometer'<sup>25</sup>. Data released by international tourism says export earnings generated around US\$1.03 trillion in 2011<sup>26</sup> demonstrating the importance of tourism on the world economy. According to Fabbri tourism is still essentially recreational travelling<sup>27</sup>. Moreover, the World Tourism Organisation defines tourism as an activity comprising of persons travelling to destinations and visiting places that are unfamiliar for leisure, business, or other purposes without being compensated. This could occur more than one consecutive year. Therefore, tourism is different from just travelling; for tourism to be considered the individual must travel using any type of transportation to the dedicated destination<sup>28</sup>.

---

<sup>23</sup> Robinson, D. (2015). "Thailand Looks to Boost its Marine Tourism Industry." Retrieved 12-08-2016, from <http://digital.kk-superyachts.com/h/i/81054915-thailand-looks-to-boost-its-marine-tourism-industr>.

<sup>24</sup> Miller M.L., J. A., and N.P. Hadley (2002). "Sustainable Coastal Tourism. In Proceedings of the 1999 International Symposium on Coastal and Marine Tourism: Balancing Tourism and Conservation." Washington Sea Grant Program and School of Marine Affairs, University of Washington; Oregon Sea Grant College Program: 3-20.

<sup>25</sup> WTO (2013). World Tourism Barometer. UNWTO. **11**.

<sup>26</sup> WTO (2012). Tourism Highlights. UNWTO.

<sup>27</sup> P, F. (1990). "Recreational uses of coastal areas. Dordrecht." Netherlands: Kluwer Academic.

<sup>28</sup> WTO (2004). "Definition of Tourism. World Tourism Organisation." World Tourism Organisation.

Some of the key elements of tourism include a tourist's fundamental motivation for travelling, which is the satisfaction of seeing something new and different from their normal routine<sup>29</sup>. To elaborate, exactly what tourists seek can be concentrated in the following three elements: educational, recreational and instrumentations. Others may be motivated by self-actualisation, a personal desire to discover and go beyond their limitations by seeking new adventures<sup>30</sup>. For the tourism to reach a certain level of a particular destination the flow of people must be at a point where one chooses to do as their desire to do the activity itself independently without any other factors or consequences<sup>30</sup>. Understanding the spectrum of possibilities of each the factors can explain the diversity of the tourism in the present-day. Technological components, such as GPS-technology and the ease of transportation has also played a major part in the rapid growth of tourism around the world.

### 2.3 Marine Tourism

It has been proven that marine tourism is not just a fast emerging sector domestically but is also the fastest growing tourism sector around the world<sup>31</sup>. Marine tourism has also grown in its diversity and by volume<sup>32</sup>. Nevertheless, coastal tourism and marine tourism are very much related and are developed in parallel; although coastal tourism puts emphasis on a range of tourism, activities and leisure that are held around the coastal areas, which could either be by land or sea<sup>33</sup>. Coastal tourism development mainly focuses on entertainment, accommodation, transport, food, and infrastructure that support coastal developments such as retail businesses, marinas, and other directly related industries. Other activities include fishing, boating,

---

<sup>29</sup> Ditton, M. M. L. a. R. (1986). "Travel, tourism and marine affairs. Coastal Zone Management " **14**: 1-19.

<sup>30</sup> Csikszentmihalyi, M. (1988). "The Future of flow."

<sup>31</sup> Miller, 1993; Cater & Cater, 2001, Hall, 2001M.L, M. (1993). "The Rise of Coastal and Marine Tourism. Ocean & Coastal Management." **21**: 183-199.

<sup>32</sup> NOAA, 1998, Moreno & Amelung, 2009NOAA (1998). "Year of the Ocean – Coastal Tourism and Recreation." Discussion paper, National Oceanic and Atmospheric Administration, Washington, DC, 1997.

<sup>33</sup> Hall, 2001:602C.M, H. (2011). "Trends in ocean and coastal tourism: The end of the last frontier? Ocean and Coastal Management." **44**: 601-618.

snorkelling, diving, swimming, and marine based eco-tourism<sup>34</sup>. Although marina was mentioned as part of coastal tourism, marine tourism would really be considered if yacht cruising was involved<sup>33</sup>. Both coastal and marine tourism development are complex and must go in parallel with more environmental hazards, and there are efforts to better understand and increase more control on both areas. The marine tourism aspect would refer to navigation not only by sea but by any means of water lakes, rivers, and channels<sup>35</sup> leaning toward sustainable development including ecological, economic and local socio-cultural environment awareness<sup>33</sup>. As part of marine tourism, sustainability efforts are combined with tourism education along the management of the marine tourism sector.

The main driving force behind making Thailand a regional Marina Hub is the Tourism Authority of Thailand. We will be focussing on the established marinas within the region, such as Hong Kong and Singapore, by studying their marinas in more details. At the same time, we will look into the types of marinas in Thailand such as river marina, marina for just docking boats, and marina for fisherman to dock their boats as case studies. There are more than 20,000 islands all over the region, which have been the driving force for the CMT (marine tourism), and lead to the promotion of the sustainable use of the marine environment in the region as well as the expansion of the marina sector.

#### **2.4 Method of Procedure - PESTEL Analysis**

After researching, it was concluded that the PESTEL analysis would be the best fit for analysing marina development in Thailand. The objective is to convey the results to business partners (investors), government agencies, and local communities and help them use the results as case studies for future coastal developments. PESTEL analysis is a method that will facilitate in identifying any existing strengths

---

<sup>34</sup> Miller, 1993; Cater & Cater, 2001, Hall, 2001M.L, M. (1993). "The Rise of Coastal and Marine Tourism. Ocean & Coastal Management." **21**: 183-199.

<sup>35</sup> J.Kizielewicz, T. L. (2013). "The Phenomenon of the Marina Development to Support the European Model of Economic Development." The International Journal on Marine Navigation and Safety of Sea Transportation **7**(3).

and weaknesses of a proposed site, weighing in against opportunities and threats that might occur to the local community and/or the marina.

According to the Australian Department of Urban Affairs and Planning (1996), ‘Marinas and related facilities are shoreline facilities that service boats and include water-based as well as land-based facilities for boats and users’. In other words, there are numerous guidelines for marina developments from all around the world<sup>36</sup>.

The PESTEL model examines Political, Economic, Social, Technological, Environmental, and Legal aspects, evaluating everything from macro to micro analysis to predict situations and circumstances that may occur in the future in the particular country.

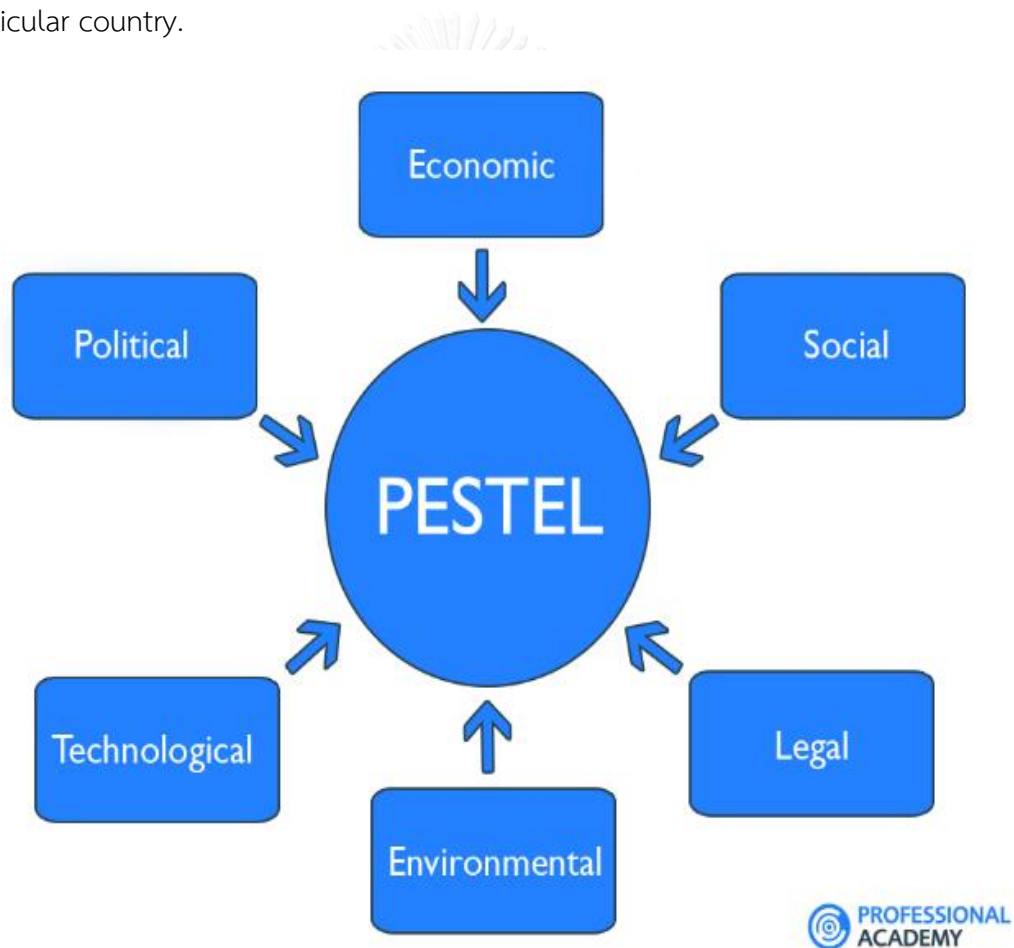


Figure 2.1 – PESTEL Analysis

Source: <http://www.professionalacademy.com/blogs-and-advice/marketing-theories---pestel-analysis>

<sup>36</sup> SCHWARZENEGGER A., M. C., and R. TSUNEYOSHI (2005). Layout and Design Guidelines for Marina Berthing Facilities. Department of Boating and Waters, California, USA.



The tool PESTEL was first originated from PEST Analysis from a Harvard professor Francis Aguilar in 1976 to get a bigger perspective of opportunities and threats in a business world<sup>37</sup>. As mentioned PESTEL analysis will be used for planning of the development process of marina in Thailand.

**Political Factors** – this subsequently refers to both internal and external politics. Internal politics may refer to minor personal interest conflicts that may happen among stakeholders. The real difficulty is with external politics, which means having to deal with government agencies and law and regulations as well as monitoring the political stability to ensure the project runs smoothly<sup>38</sup>.

**Economic Factors** – again taking into account both the internal and external economic milieu. The micro-economic part is making sure the project feasibility was studied and all financial evaluation is sufficient throughout the lifecycle of the project. Then macro-economic: taxes and interest rates are monitored, economic forecast, inflation rates, exchange rates, disposable income, and working conditions must be taken into account<sup>38</sup>.

**Social Factors** – Lifestyle, awareness of the local communities, and clear benefits for the local people of the area being developed involving all parties throughout the project development. Other social aspects can include employment, local infrastructure improvements leading to development in the local property, and real estate prices.

**Technological** – This would be vital from the start, in planning the development process, and the limitation of technology, taking into account all factors especially the environmental side; how best not to affect the nature. This may also include any means of supporting research and development activities with the local government<sup>38</sup>.

**Legal** – The legal factor includes all aspect of a development plan from health and safety and business opportunities, to consumer rights and regulations.

---

<sup>37</sup> Tools, M. (1996-2017). "PEST Analysis Identifying "Big Picture" Opportunities and Threats." Retrieved 10-02-2017, from [https://www.mindtools.com/pages/article/newTMC\\_09.htm](https://www.mindtools.com/pages/article/newTMC_09.htm).

<sup>38</sup> Katko, T. S. (2006). "Road Safety Fatalities, Management, and Policy in Finland 1970-2003 " Public Works Management & Policy **11**: 126-138.

Developing a marina would require a port permit, which will require a dedicated lawyer to be assigned to monitor the project and work closely with the local authorities to make sure the developers meet all the requirements<sup>38</sup>.

**Environmental** – Perhaps this will have the most impact on developing a marina. As pollution increases, there are strict environment regulations that need to be carefully studied. (EIA)

## 2.5 SWOT Analysis

After looking at the big picture or macro of analysing marina development in Thailand, SWOT analysis is used to narrow down the analysis and focus on the micro aspect of the development. Following analysis includes looking at the strengths, weakness, opportunities and threats to the economy that may occur both short and long-term. Just like PESTLE analysis SWOT focuses both external and internal factors the development in a more specific detail. It helps evaluates the strategic position of the project identifying all the strengths, weaknesses, opportunities and threats.

Table 2.2 – SWOT Chart

Strengths	Weaknesses	<b>Internal (Manageable)</b>
Opportunity	Threats	

**Source:** David J. 2004; Principles and Practice of Marketing

After examining the macro-economic of marina development, with SWOT analysis will focus on the micro-economic factors areas which are under the influence of the marketing management. This will help determine the future direction of the development<sup>39</sup>.

**Strengths** – only analyses the key resources that would benefit or add value to the customer or end users. Marina sector is a niche market which still has potential in Thailand and most importantly it is over demand.

---

<sup>39</sup> Jobber, D. (2004). Principles and Practice of Marketing fourth edition. UK, McGraw-Hill International UK Ltd.

**Weakness** – once the strengths are determined the following would also distinguish the weakness. With tougher regulations marina development is become much hard in recent years as well as lack of local skill to manage a marina since this is still considered new business in Thailand.

**Opportunities** – Following helps points out the prospect of the marina sector in Thailand pointing out the unexploited marina industry along with high potential in Thailand.

**Threats** – The biggest threats would be the unstable government or political protest causing a direct affect to the tourist industry. External factors such as the current influx of migrant in Europe.

## 2.6 Variety of Marina Infrastructure

According to Luković & Gržetić, to better understand the scale of the project<sup>40</sup>, marinas can be classified in the following categories:

Maritime Zone Position:	Marina Ownership:
<ul style="list-style-type: none"> <li>● Open</li> <li>● Semi-enclosed</li> <li>● Enclosed</li> </ul>	<ul style="list-style-type: none"> <li>● Private</li> <li>● Municipal</li> <li>● Public</li> </ul>

### Location / Site:

- Sea/Ocean
- Estuary
- Lake
- River
- Canal

The main purpose of a marina is to accommodate and secure yachts, to ensure that all equipment in the water is indispensable, and that other important

---

<sup>40</sup> GRŽETIĆ, L. T. a. Z. (2007). "Croatian Hydrographic Institute Split." 74.

features, including the disposal of wastewater and general waste must properly be managed. Any marina development will have an effect to the surrounding in every possible way: economic, social and environmental. Mainly, the environment will closely be monitored by EIA.

## 2.7 Marina around the World

Referring to the map below, we can see that marinas around the world are mainly concentrated in Europe or in countries that were colonised. All the established marinas in Europe were once docking for navy warships.

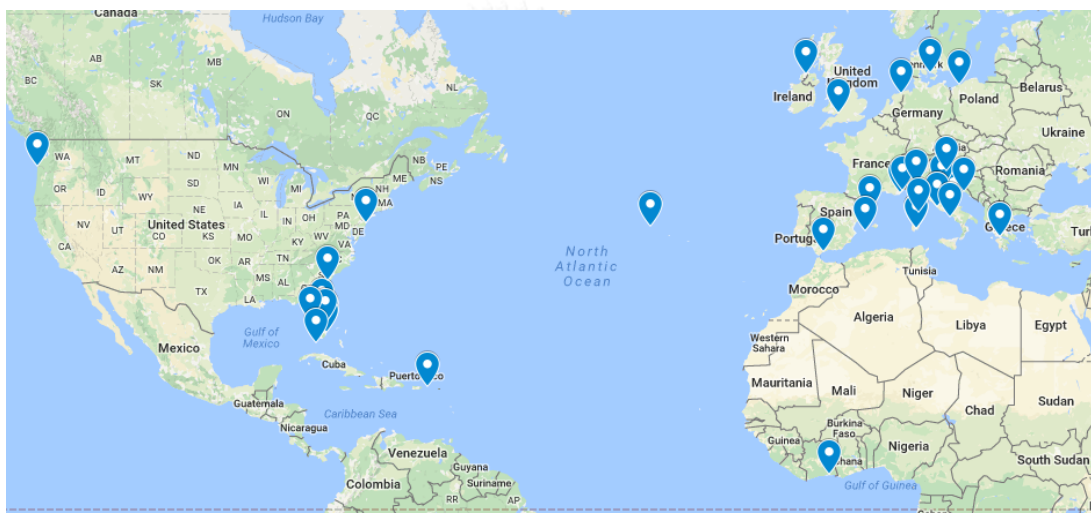


Figure 2.2 - Marina World Wide

Source: Google Maps

## 2.8 Blue Flag Campaign

As part of achieving sustainable development Blue Flag Campaign fundamental is to promote the achievement of such developments around the world by encouraging public participation in decision making during the development process<sup>41</sup>. The Blue Flag Campaign has over 19 marinas worldwide registered under its campaign however they yet to have a marina from Asia be registered on their campaign. The Blue Flag Campaign with the co-operation with the European

<sup>41</sup> Groups, C. M. (1987). "Sustainable Development Success Stories".

Commission started this program to promote European year of environment which then led to the Blue Flag Campaign as an environmental eco-label exclusive award to beaches and marinas around the world. The award is based on 26 different specific criteria for beaches and 16 specific criteria for marinas covering the same four major aspects.

1. Water Quality
2. Environmental education and information
3. Environmental management and facilities
4. Safety and service

Blue Flag Campaign renew their hunt to award different beached and marina each year to ensure promote the continuing of their environmental eco-label sustainable development around the world. The selection process includes the final approval from the European Blue Flag Jury. Each year on the 5<sup>th</sup> of June which is also the World Environment Day the Blue Flag Campaign was raise the flag, during this season an inspection visit would be carried out randomly internationally to ensure the all are compliance are followed in any case of violation the flags are withdrawn. The campaign main objectives are to promote and make aware of the protection and preservation, educate, awareness on clean and safe water, integrated and sustainable coastal management<sup>42</sup>. As part of their the Blue Flag Campaign initiative is to increase the number of non-European counties on their campaign and award list to help raise the awareness of environmental friendly development especially in the regions of South East Asia where there has been an increase in coastal developments.

The campaign is trying hard to expand their communications to Asia in the hope to help contribute to the change to the approaches of the local authorities and marina operators towards a more sustainable development making it a reliable and more eco-label environment. Making the visitors feel the experience of cleaner

---

<sup>42</sup> Campaign, B. F. (2014). "Blue Flag." Retrieved 05-01-2017, from <http://www.blueflag.global>.

and safer beaches & marinas are sensitised to environment protection as part of Blue Flag sites<sup>42</sup>.

## 2.9 Established Markets

According to a research conducted by IBIPLUS (News Intelligence Data), there is shortage of marina berths in the established boating markets of Hong Kong, Singapore, and Thailand<sup>43</sup>. Looking at the likes of ‘Republic of Singapore Yacht Club,’ which was founded in 1826 and is one of the oldest marinas in the world; and the ‘Royal Hong Kong Yacht Club,’ which on the other hand has a strong legacy dating to 1894.



Figure 2.3 – Singapore Marina

Source: Republic of Singapore Yacht

According to Francis Lee, president of Raffles Marina in Singapore, there was a strong momentum in the late 1990s to create an image for Southeast Asia similar to the Caribbean and the Mediterranean for the marina sector, but because of the Asia economic downturn in 1997 the vision was halted until recently.

---

<sup>43</sup> IBIPLUS (2016). "Market overview: South East Asia." Retrieved 30-11-2016, from <http://www.ibinews.com/country-reports/market-overview-south-east-asia-4051>.

Focusing on Hong Kong and Singapore will help us understand the development patterns of both countries. Boating activities in Hong Kong and Singapore were driven by the region's colonial times, which then led to the commercial marina in the present-day. The development concept may vary, but the pattern and behavior will not be much different. Marina development has always been one of the most attractive industries for developers in the region. However, the Asian Financial Crisis in 1997 caused a lot of the projects to be postponed or cancelled. Marina development started to pick up again in 2005 and has been steadily recovering in the region according to the IBIPLUS research<sup>43</sup>

### 2.10 Marina in South East Asia

This section will focus on marinas in South East Asia before narrowing down to just marinas in Thailand.



Figure 2.4 – Hong Kong Marina

Source: Royal Hong Kong Yacht Club

According to the International Council of Marine Industry Associations (ICOMIA) marina development around the world lacks the understanding of the

economic benefit of marinas and the negative effects of uninformed regulatory requirements, which makes it harder for the marina industry to expand<sup>44</sup>



Figure 2.5 – Marina in South East Asia

Source: Google Map

Narrowing down the marina to within the Southeast Asian countries, we can see from the map above that the most-developed marina is Singapore. The entire country is an island, which is ideal for such a sector. In any case, Thailand is also geographically centered, which makes it ideal to set up as a marina hub for the region.

---

<sup>44</sup> Marinas, T. I. C. o. M. I. A.-W. (2016). "Future of Marinas in a Changing World."



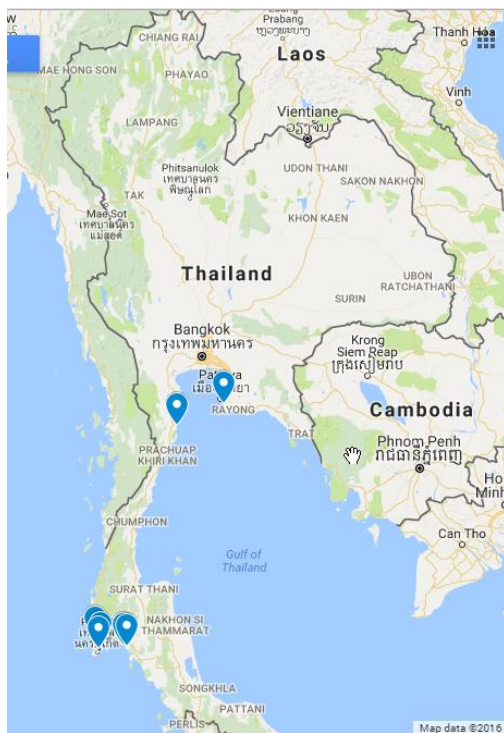


Figure 2.6 – Marina in Thailand

Source: Google Map

Finally we look at Thailand, which has the benefit of both sides of the sea Andaman Sea and the Gulf of Thailand and currently has eight marinas around the country.

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY

Table 2.3 – Established Marina in Thailand

Marinas	Locations	No. Of Berths	Land Area (SQM)	Land Area (Rai)
Racer Marina	Hau Hin	100	60,551 sqm	37.8
Ocean Marina Yacht Club	Pattaya	370	142,599 sqm	89.1
Ao Po Grand Marina	Phuket	300	171,648 sqm	107.2
Yacht Haven	Phuket	300	202,834 sqm	126.7
Royal Phuket Marina	Phuket	296	87,847 sqm	54.9
Boat Lagoon	Phuket	299	57,879 sqm	36.1
Port Takola Yacht Marina & Boatyard	Krabi	250	84,376 sqm	52.7
Boat Lagoon (In-land Marina)	Krabi	180	65,502 sqm	40.9

## 2.11 Related Research

Marina is still a unique industry in Thailand with only a small amount of research done - mostly by the private sector – before developing an actual marina. Therefore, most of the academic papers used during the research are based overseas. This thesis can be referred to as a pattern for marina development process.

Table 2.4 – Related Researches on Marina

Year	Author	Title	Summary
2006	E.Pinar Genc, N.Guler	Assessment of Marinas in the Mediterranean and the position of Turkey	Developing a marina requires analysing the country's service characteristics and best way in marketing the market activities such as yachting in the country and the surrounding region as a whole. SWOT Analysis is required to determine the opportunities and risk for marina.
1995	State of Ohio: Environmental Protection Agency	Pollution Prevention for Marinas	To develop a proper/sustainable environmentally friendly marina, the water pollution and maintenance activities must be taken into account during development stage.
2010	Marina Industries Association of Australia	Size and Characteristics of the Australian Marina Sector	Marina's characteristics and the scale, type of marinas can help determine the outcome of the marina development. Types of boats and capacity available are vital for marina during the planning stage.
2011	The Superyacht Intelligence	Marina Capacity & Berth Analysis Report	Overall picture of the marina sector, growth of the superyacht fleet (yearly) around the world. New Marinas planning and executions and the effects of the global economic crisis on marina development.

Table 2.4 - Related Researches on Marina (Continue)

Year	Author	Title	Summary
2016	Kovalev N.V. – Saint-Petersburg State University of Economics	Using Public-Private Partnerships for Yacht Marinas Development	Looking at the possibilities of applying the public-private partnership model and the recent trends with such approach. Analyse the key challenges of using public-private partnership for yacht marinas development.
2016	The International Council of Marine Industry Associations (ICOMIA) – World Marinas	Future of Marinas in a Changing World	Latest marina developments worldwide; knowledge and tools to developing a marina in the global marina industry in the fast changing world.
1997	Anthony, E.J.	The status of beaches and shoreline development options on the French Riviera: a perspective and a prognosis	Pressure from both the state and locals on coastal environments resulting in non-sustainable development.
2015	Paithoon Monpanthong, Therdchai Choibamroong	Performance of Phuket's Port of Call Management for Cruise Tourism: an Assessment of IPA Application	Research was based on the importance-performance analysis to highlight the passenger cruises into Phuket; analysing the traffic of passenger cruises. As well as evaluation the importance of port management and performance in Phuket.

The research finding suggests that marinas tend to adapt to the environment where it was developed. On the other hand, marinas can be classified in six different roles<sup>45</sup>.

1. A mix-use marina with all the facilities available at the same time, and developing and involving the local communities.
2. Marina that develops independently within its own capacity and area, and not involving local communities.
3. Marinas that are developed with links to vital urban centres for attractions
4. A marina that is part of a large tourist section
5. Marina developed as a sustainable co-existent with industrial economic zones.
6. Marina with links to sports facilities more toward commercial prospects.

In conclusion, the findings illustrate that the nature of marina development would widely depend on a particular area, country, location, and site of the project. There are numerous guidelines available for such developments. As a result any kind of marina development would have an impact on the surroundings and affect social, economic, and environmental in many different ways.

---

<sup>45</sup> Lukovic, T. (2012). Nautical Tourism and its Function in the Economic Development of Europe. In: Visions for Global Tourism Industry, KASIMOGLU M.

### Chapter 3: Research Method

For my research method, I chose the on-site observation concept, visiting each marina in Phuket. I travelled to the Phuket Boat Lagoon (PBL), which is one of the oldest marinas in Thailand and is considered the most suitable for this kind of research as it offers everything within the marina compound. Its management emphasised the importance of zoning and providing other relevant services apart from docking yachts. Because of cheap but skilled labour, Phuket Boat Lagoon offers one of the best repair services in the region; they even have people sailing from Singapore just to do repairs or to store their yachts in Phuket.

What this research aims to achieve mainly is to develop standard guidelines for marina developments in Thailand after understanding all the key concerns and benefits, and how real estate revolves, around marina development. The research proved that a marina alone couldn't survive as a business on its own. Property development is vital for the return on investment that was poured into the marina. Categorising all aspects of the marina's environmental management -- such as the potential impact of pollution being released by the yachts into the sea -- has to be taken into account seriously.

The consequences of pollution from recreational yachting, according to the Superyacht Intelligence<sup>46</sup>, are among the main operational impact that has to be addressed by the marinas. Utilising a marina with a mix-use concept can be hazardous and can cause damage to the environment, and issues like fuelling stations sewage pump-out and all the waste that results from the operations need to be contained. People need to be educated properly if they are to take responsible courses of action.

This report is based on secondary analysis, engaging in empirical data and looking into existing theoretical frameworks in the world of Marina Development, both domestic and international. Work on the report started in July 2016, and involved gathering all relevant information, conducting interviews, and visiting marina

---

<sup>46</sup> Superyacht, T. (2011). "Marina Capacity & Berth Analysis Report." [The Superyacht Intelligence Quarterly](#)

sites around the country as much as possible. Most of the gathering data, getting first-hand information from owners and operators of the marinas, were done in Phuket.

### **3.1 Scope of Research**

The objective of this research is to give an overview of all the marinas in Thailand and understand the development around them. A research was conducted through on-site visits to observe the actual environment and interviewing the owner of a marina to get insights on how the marina was developed and managed. This research also takes a look at socio-economic factors around developing a marina and the influence they have towards the economy, both at the local and national level.

The Marina Industry in Thailand is relatively young, but it is rapidly growing due to influences from neighboring countries such as Singapore, not to mention the influx of marine tourism. The government sees an opportunity here to develop the sector, and in the process boost the marine tourism industry and make Thailand Southeast Asia's maritime hub. Thailand is already a world famous travel destination. It is well known for its diversity, friendliness, and sandy beaches, and attracts famous yachters with its year-round sailing weather. However, several other factors -- environmental ones being on the top the list -- needs to be addressed if expanding the sector in Thailand is to provide maximum benefits for all. The mix-use concept of development is considered the best fit as a model for marina development

### 3.2 Research Framework

The research framework was conducted with tools according to the table below. The objectives of the research were to determine the main parameters associated with both main and secondary variables, and all methodology used during the research make it more responsive.

Table 3.1 – Research Framework Table

Objective	Main Variable	Secondary Variable	Research Methods	Academic Papers	Research Tools	Findings
1. Develop a sustainable process for developing a marina and determine best managing style for Marina sector in Thailand.	Environment/ Explore gateway community issues	Location Analysis / Management & planning basics	Primary Research Observation (site visit) Interview Marina owner	Established Marinas around the world	Academic Papers from established source	Identify current (tourism, infrastructure, local and foreign yachting history)
	Observation	Location / seabed / Breakwater (Structures)	Secondary Research - Site Visit - Interviews			Analyse current & past leisure vessel density in traffic

Table 3.1 - Research Framework Table (Continue)

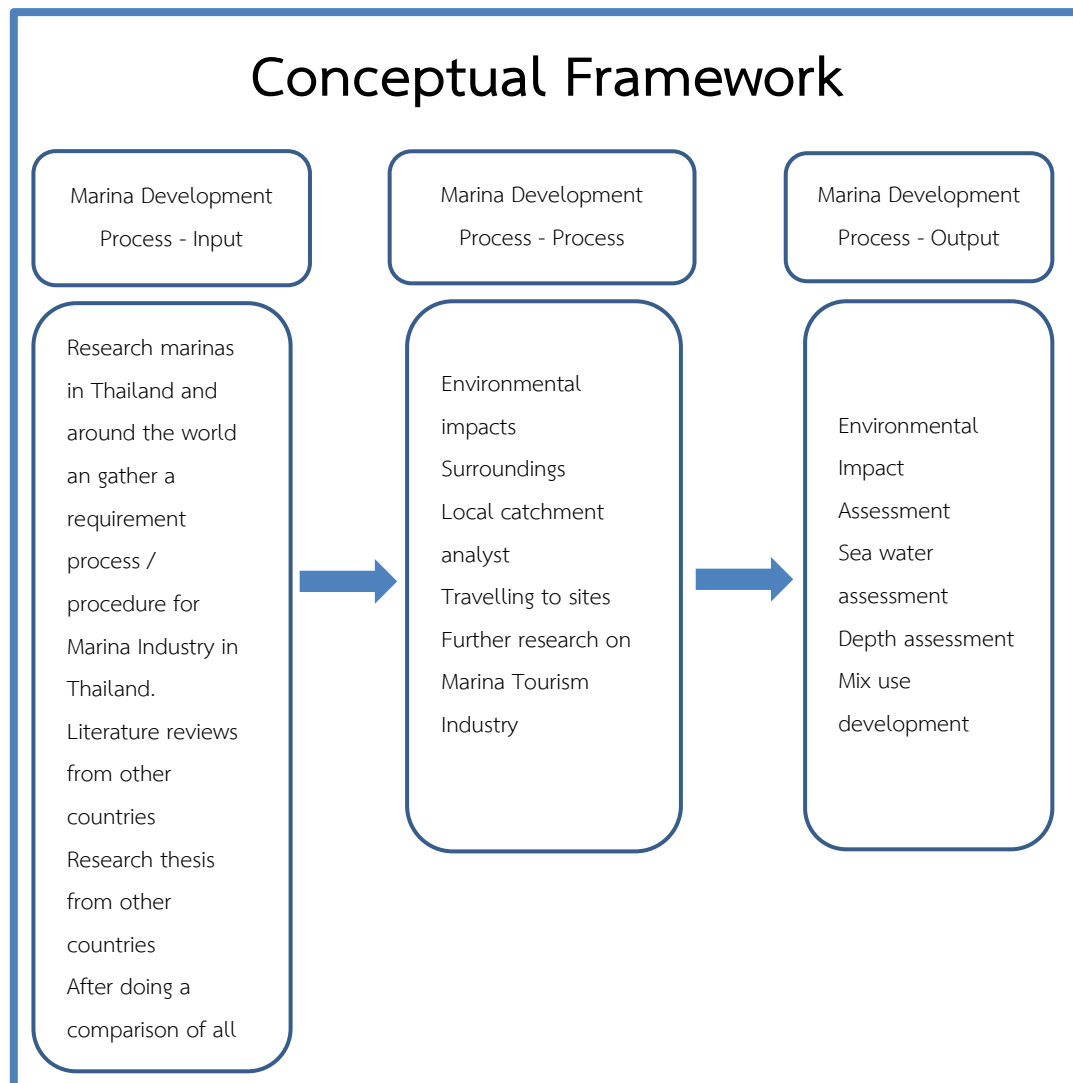
Objective	Main Variable	Secondary Variable	Research Methods	Academic Papers	Research Tools	Findings
2. Illustrate the values of marina and understand the marina sector in Thailand compared to other regions.	Explore opportunity arising with marina	Gather visions, plans, actions, and support stance for marina development		Analyse perceptions from local and foreign private marina users regarding facilities and improvements		Development Plan & Process / local traditions & heritage

### 3.3 Conceptual Framework

The research objective is to analyse established marinas to find their strengths, to work out common links between marinas in Southeast Asian countries, and to develop a benchmark for marina development process in Thailand. This thesis will only be a guiding proposal, illustrating the existing gaps, and presenting how developing a sustainable marina will benefit all parties. The end-goal is to develop a process that is at par with international standards.

The marina samplings were chosen based on the available facilities on offer, the recognition at international level, as well as information collected from representatives at each marina.





CHULA  
Figure 3.1 – Conceptual Workflow

Source: Vikrom Sachabhum

### 3.3.1 Objective Explanation

As stated earlier, the first objective of this research is to develop a benchmark in developing a sustainable process for marina development as well as to determine the best managing style for the marina sector in Thailand. We reviewed and analysed established marinas in Southeast Asia, especially those that are most well-known and rich in history, for the samplings.

After thoroughly analysing the marina industry in general and the chosen marina samplings in particular, the second research objective is to illustrate the

economic and employment values of marina development and to understand how the marina sector in Thailand compares to those in neighboring countries.

### 3.4 Research Method Framework

The whole research process is intended to help maximise the findings and reconfirm all that had been analysed from the previous stages to get the best proposal guidelines that matches the requirements at the highest level.

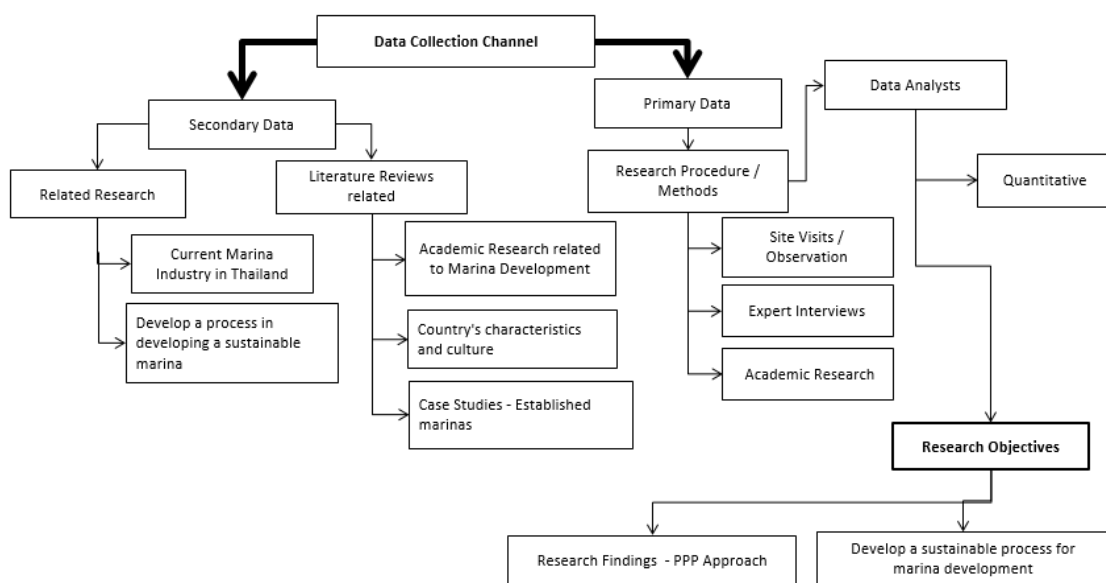


Figure 3.2 – Research Method WorkFlow

Source: Vikrom Sachabhum

The research method workflow above demonstrates the data collection channels, clearly stating between secondary data and primary data. The objectives of the analysis are to produce a guideline that has business relevance for both the government agency and the local communities in Thailand, and which will allow the use of Thailand as a case study for future rural coastal development. This PESTEL analysis will be useful in identifying existing gaps and loopholes in the proposed property sites, collate business ideas, and compare them to opportunities that may be opened and threats they might pose to the local community and marina. This thesis will be summarised by a brief feasibility statement along with relevant

recommendations for marina developments. There are three levels of marina planning objectives that all marina developers should consider.

Technical Feasibility – Engineering, Environmental, Regulatory Compliance

Table 3.2 – Research Tool Table

	Recognized as Objective	Thoroughly Studied	Is Achieved
First Level (Technical)	Always	Almost Always	Often
Second Level (Economic)	Always	Often	Often
Third Level (Profound)	Seldom	Almost Never	Almost Never

Source: (Biondi, 2010)

### 3.5 Population and Sampling

There is a pronounced similarity in the marinas used for samplings, both being of mix-use type. For Phuket Boat Lagoon, the first mix-use marina to operate in Thailand, we met with and interview the owner to gain first-hand insights on marina development and operation management of marinas in Thailand. Royal Phuket Marina, meanwhile, is one of the most internationally recognised marinas in Thailand. They share the same waterway entrance to their ports.

Table 3.3 – Population & Sampling

	Phuket Boat Lagoon	Royal Phuket Marina
Established	1995 (First Marina Complex)	2005
Land Used	100 Rai	65 Rai
Hotel	YES	NO
Berth Storage	300	296
Commercial Area / Unit	50 Rai Mix-Used, 290 Units	10 Rai / Residential, 92 Units
Marina Type	In-Land	In-Land
Occupancy	90%	100%

Source: Interviewing Khun Boon Yongsakul & Khun Sitt Pholchareon

As part of the research, the following parties were contacted or referred to for additional supporting information on marina development in Thailand:

- Tourism Authority of Thailand
- Marine Department (Ministry of Transport)
- Environmental Impact Evaluation Bureau (EIA)
- Dr. Paithoon Monpanthong, Associate Dean – Academic Affairs (NIDA)
- Khun Boon Yongsakul – Phuket Boat Lagoon Owner
- Khun Sitt Polcharoen – General Manager of Royal Phuket Marina
- Khun Wirachai Pranveerapaibool – Architecture of Royal Phuket Marina
- Mr. Wicky Sundram – Executive Director of Phuket Boat Lagoon
- Khun Matthew P. Na Nagara – Port Takola Yacht Marina & Boatyard in Krabi  
Owner

The respective parties mentioned above were all contacted because all of them are involved in developing marinas, direct or indirectly. The Tourism Authority of Thailand has been promoting marine tourism in Thailand and has launched initiatives to promote the country as the Regional Hub for Marina. The Thai government supports the initiatives and has openly stated full support for marina developers; including in the BOI and EIA procedures. Developers can expect to receive more support and cooperation from the state agencies.

### **3.6 Data Collection Methods**

Following the selection process of the population and sampling, this section reviews the current conditions of each sampling and proposed in-depth interviews for the best outcome. There are two kinds of data collection conducted (interviews with on-site visit and secondary source data), which were analysed together with theoretical knowledge and baseline data as part of PESTEL analysis. Overall there are several other factors taken into account, e.g. demand, support, stakeholder involvements, organisation, and government agencies.

Findings from the research contain qualitative and quantitative data from two different main sources: secondary data sources and semi-structured interviews and or elite interviews. Secondary data sources convey clear information on the marine tourism. Semi-structured interviews, combined with on-site visits followed by elite interviews on the topic of marina development, were conducted with representatives mentioned above for the better understanding of the extent of local knowledge, administrative, political, support and actions undertaken concerning marina development projects.

### 3.6.1 Qualitative and Quantitative Data

Again, two different data sources contributed toward this research: interviews and secondary data. Secondary source data is data not obtained or collected by the researchers themselves due to lack of time and resource deficiency. Such data usually come from reliable sources such as pre-established journals. The data has been produced by different sources. According to Bishop, understanding the background of the data and how they were compiled increases the reliability of the data by minimizing bias and error that may be included in the data<sup>47</sup>. The secondary source data used in this thesis are mainly quantitative data. The primary data sources used in this thesis are from semi-structured interviews and academic papers. The qualitative data was collected with the help of semi-structured interviews.

The semi-structured interview is a method for qualitative interviewing. It delivers qualitative data by giving up 'uniformity of questioning to achieve fuller development of information'<sup>48</sup>. In addition, the qualitative interview produces a fuller interpretation of an issue based on the experience of the interviewee<sup>48</sup>. Alternatively, the qualitative interview is not suited for research that requires statistical data but rather a tool designed to extract feelings, thought, facts, and experiences of the

---

<sup>47</sup> L, B. (2007). "A Reflexive Account of Reusing Qualitative Data." [Beyond Primary/Secondary Dualism. Sociological Research Online.](#)

<sup>48</sup> WEISS, R. S. (1994). *Learning from Strangers: The Art and Method of Qualitative Interview Studies*. N. Y. F. Press, New York: Free Press.

individual on a specific topic<sup>49</sup>. Qualitative interviewing itself is an umbrella term for variety of interview styles such as from less to more structured, an informal conversational interview, general interview guide approach, and the standardised open-ended interview<sup>50</sup>.

Finally a more open interview style called elite and specialized interviewing has been used to obtain detailed information from leading individuals<sup>51</sup>. Following this interview style is similar to the general interview guide approach, which ensures that the same general areas of information are covered from all interview partners and that the interviewer maintains in control and is the one who is asking the questions. As part of this thesis, three interviews were conducted using the 'elite and specialized interviewing' method. The reason for choosing such a method was to honour the interviewer for their time and effort. In general, qualitative interviewing can be a certain source of bias and errors. Furthermore, the quality of information obtained is dependent on the interviewer<sup>52</sup>. Another very common error is to ask questions and to seek for answers that are considered premeditated conclusion<sup>52</sup>.

### 3.7 Data Analysis Methods – Secondary Source Data

From the analysis, all information gathered from the samplings and from yachter/sailors and marina owners, refers back to the chosen marinas that are within maritime traffic. The first chosen marina, the Phuket Boat Lagoon is within the boundaries of Royal Phuket Marina which are both located on the Andaman Sea. Since Phuket Boat Lagoon is the first mix-use marina offering the best-suited facilities for sailors and maintenance facilities with skilled labour. Foreign sailors from all around the world, especially from neighboring countries like Singapore, sail to Phuket Boat Lagoon. Most of them prefer to get all the service and maintenance done on their boats, as well as store their boats, in Phuket Boat Lagoon. The second chosen

---

<sup>49</sup> WOODSONG, M. N. a. C. (2005). "Qualitative Research Methods: A Data Collector's Field Guide."

<sup>50</sup> D.W, T. (2010). "Qualitative Interview Design: A Practical Guide for Novice Investigators." The Quantitative Report **15**(3): 754-760.

<sup>51</sup> L.A, D. (1970). "Elite and Specialized Interviewing." Northwestern University Press, Evanston, USA.

<sup>52</sup> M.Q, P. (2002). "Qualitative Evaluation and Research Methods." Sage Publications USA.



## Chapter 4 – Case Studies

- Overview of Context
- Data of selected Marina Samplings
- Case Studies A & B
- Secondary Source Results
- Business Model Development Process
- Interviewee Management Levels

After going through the research methodology in the previous chapter where all the data collection process were presented and the literature review was applied to explain the findings, this chapter reassures that the findings are in accordance with the research objectives. This chapter will conclude by developing a benchmark for sustainable process for a marina development and determine the best managing style for the marina sector in Thailand. It will also touch-base on the importance of economics and employment values from the standpoint of marina development and compare the marina sector in Thailand with other Southeast Asian countries.

### 4.1 Overview of Context

Looking at the overview of the marina sector in Thailand, we will see that there are currently three types of marinas in the country. According to the Marine Department of Thailand, they consists of:

1. Privately owned and commercially run marinas offering services to sailors most of which are mix-use concept marina,
2. State Controlled Marina – government owned, usually for military vessels, coastguard, and border patrols and not suitable for commercial yachts, and
3. Municipal Marinas – which offers cheap and accessible launch-point for locals. Often, these are run-down and poorly maintained, lacks infrastructure, desperately in need for investment, and not suitable for commercial yachts.





4. According to a research conducted by Dr. Paithoon Monpanthong, the number of yacht marinas in Thailand has been rising since the mid-2000s alongside property development, because both are in the same market of high-spending tourists. This works well for those eager to have an estate at the marina where their yachts can be docked at the same time, and for high-end tourists who are spending their holiday in a top resort and have desire to rent yachts for leisure. Thailand is already a world-renowned travel destination with alluring natural beauty on both the Andaman Sea and the Gulf of Thailand sides, making sailors keen to sail onto the Thai waters. The average length of a family sailing and docking in Thailand marina is around 60 days.

#### **4.2 Data of selected Marina Samplings**

There's a similarity between both marinas used in the samplings. Both are of mixed-use type. Phuket Boat Lagoon is the first mixed-use marina to operate in Thailand, and we had the chance to meet its owner to gain first-hand interview on marina development and the operational management of marinas in Thailand. Royal Phuket Marina is one of the most internationally recognised marinas in Thailand. Both share the same waterway entrance to their ports.

Table 4.1– Marina Samplings Fact Sheet

	Phuket Boat Lagoon	Royal Phuket Marina
Established	1995 (First Marina Complex)	2005
Land Used	100 Rai	65 Rai
Hotel / Residential	Hotel	Condominiums
Berth Storage	300	296
Commercial Area / Unit	50 Rai / Mix-Use 290 Units	10 Rai / Residential Units 92
Marina Type	In-Land	In-Land
Occupancy	90%	100%
Map location		

### 4.3 Case Study – A

#### Interviewed Khun Boon Yongsakul - (Phuket Boat Lagoon on 4<sup>th</sup> March 2017)

Khun Boon is the owner and the acting Deputy Managing Director of Boat Lagoon.

Key factors to consider when developing a marina:

1. Surrounding attractions for the tourists, e.g. nearby islands for scuba diving
2. Stopover area/rest area for yachts
3. Sea/ocean security; safety measures
4. Mixed-Use area surrounding the marina (port) is vital in drawing people to the marina. (Facility to support visitors)
  - a. High investment leading to real estate development surrounding the marina
  - b. Building a new community adding value to the property
  - c. Selling villas, houses rather than just developing hotel
  - d. Small community within

- e. Property development is vital to present-day Marina Development due to the high investment needed
- 5. Infrastructure surrounding facilities need to be accessible when developing marina

Price range for a single house within Phuket Boat Lagoon -- another main reason for developing property around the marina to retrieve investment.

- Single House Pool Villas, 15-30 million baht
- Town home, 10 million baht



Figure 4.1 – Phuket Boat Lagoon

Source: Phuket Boat Lagoon

#### Other businesses within marina (mix-use concept)

1. Office for rent
  - a. Broker / Agencies – selling boat, yacht, insurance, housing and property, boat charter

2. Houses for Rent / Sale – can be local / foreigner offering unique style (marina life style)
3. Condominium
4. Boat lifts (fork lift) Berthing facilities
5. Hardstand (providing boat storage on land service)
6. Offering workshops facilities for rental
7. Storage for rental keeping all the yacht / boat equipment
8. Function venues for events (team building) using marina as a selling point for view
9. Paint shop repair facility
10. Cater all types of boat not just yacht but speed boats as well (value added)

A marina is also all about organising/zoning all facilities accordingly and selling the marina lifestyle. Residential, hotel, and commercial venues are all part of a modern marina development. Because of the niche market, people with yachts tend to live a luxury lifestyle. Importing yacht/boat into Thailand requires 0% tax, only VAT.

It is vital to have facilities within the marina to offer clients. When people dock their boats (yachts) at a marina, most of the time they expect water, electricity, security service (safety), super market, and any other facilities that provide the best service; a mini town within the marina facility. The area required to develop a marina must include some commercial areas of about 50-60 rai. (30 rai on sea and at least 20 rai in land surrounding for workshops, and about 50 just for marina development)

In Thailand, in-land marinas would be ideal because off-land marinas would not pass the EIA or the environmental law or will not be granted permit by the Sea Department to operate. One of the main requirements within the EIA for off-land marinas is that they require permission from a public hearing and need a majority of votes in favour to be able to proceed. People then tend to turn to in-land marinas.

By definition, the marina concept is to provide a rest area for yachts and their crew to rest; and offering full service and benefits. A marina can be compared to hospital for boats (health check-up for the boats). Each yacht would have its recycle of maintenance. After a certain time at sea, it would require cleaning or check-up. Having enough area to provide services to the yacht is vital (economics of scale) for marina management.

Based on my interview, I learned that marina operations tend to expand their empire not by investing in other locations but by building a business module such as franchising their management know-how, offering consultation service and charging fees to manage and operate marina for clients. This is very similar to the hotel business module; setting themselves as management franchise for marina developers.

#### **Marina Management types**

1. Traditional marina management is by memberships only. People need to be members of the yacht club to have any say within the marina, and for any change in the marina club would require 100 yes from all the members. This has proven difficult to manage. However, the Australian style of marina management is service based, and very similar to hotel services, which is per visit or according to the duration of the stay. E.g. once the facility had run down and need refurbishment, the management would need return on investment from members which can be difficult at times. The Ocean Marina used this style in the beginning.
2. The Phuket Blue Lagoon adopted the American/Australian style of marina management, which is service based and similar to hotel management.

### Marina Key Success

Based on Khun Boon's valuable experience of managing a marina, these are the key to a marina's success:

- Security (CCTV) - (surrounding facilities and location to the city centre/airport) 'breakwater'; reduce wave action entering marina basin; low environmental impact and no water depth limitations; and wind restrictions for boat stability during docking. Access to dry storage structure, and customised dry stack to meet any boat owner's requirements must be offered (long-term dry storage facility to leave their boats and return to their country). They must also have other necessary utilities available; water, electricity and have boat engineers available to service customers.
- Convenience. All boating facilities and maintenance services for customers to choose to do any work on their boats from (engine specialist, restaurants and supermarkets) must be offered as in a community for the sailors to just dock their boats and not having to travel farther distance for anything. [Full facility – offering a one stop service]
- Marina industry in Thailand is a niche market with only a handful of well-qualified professions in the field. Phuket Boat Lagoon has taken the advantage of hiring a well certified expert (with CMP–Certificate of Marine Profession) as Executive Director, which also lifts the standard of marina and puts Phuket Boat Lagoon at par with the international marinas.

## Future Marina Development

Khun Boon believes that turning Thailand into the marina hub of the region is part of the future marina development in the country. Thailand marinas must develop full service facilities offering everything, from engine service and boat decoration to boat interior design. Thailand may be short on skilled labour workforce but its infrastructure is well ahead of neighbouring countries. Yachts can be considered as homes where people live but which, on the other hand, need regular maintenance as in the interior of the boats.

The know-how and the skill sets are in shortage in Thailand. With such a niche market, high skilled workforce requires training. Technologies involved are mainly from Europe. Any major engine maintenance work or work done on the boats -- stainless steel work, for example -- would require high skilled labour from Europe. Large machineries such as trailer-ramp and crane section for U-crane used for lifting yachts and superyacht can only be ordered from Europe with only handful of them available for sailors in Thailand marina.

- Boat Lagoon U-crane can lift boats up to 80-tons/90 foot. Currently ordering a larger trailer-ramp to be able to carter larger boats 120-tons/100 feet.
- Marinas would need to have large service facilities to support sailors and large boats. (superyachts or 150 foot above)
- Currently, only two marinas in Phuket can cater to super yacht 50m above (Yacht Haven and Ao Po Grand Marina)
- Yacht Haven and Ao Po Grand Marina)



Figure 4.2 – Example of U-Crane in Phuket Boat Lagoon

Source: Phuket Boat Lagoon

### **Type of real estate best suit marina development**

It has been proven that a hotel is a vital facility support when developing a marina. Since marina development requires big investment, the only way to return the cash invested for the investor is developing property along the marina. Real estate is also another important tool in lifting the whole real estate market in the area to a whole new level; offering a marina lifestyle to buyers. Townhouses have proven a success in Phuket Boat Lagoon, which allows developers to maximise the use of the entire marina. Real estate is vital not just for the sailors visiting the marina. Anyone seeking for a marina lifestyle living would also be able to buy housing estate at marina. This model has proven to be a success in Phuket Boat Lagoon where a majority of those now living in the estate are not associated with boating or yachts, but purely for the lifestyle and the environment.



### 4.3.1 Case Study – A

#### **Executive Director: Wicky Sundram (CMP–Certificate of Marine Profession)**

I was very fortunate to have had the chance to meet the acting Executive Director of Phuket Boat Lagoon, who gave me a quick inside look to the marina industry in Thailand as compared to others in the region. Compared to Malaysia, which has more than 15 operating marinas, Thailand has only eight. However, Thailand focuses more on the marina industry as a whole; offering specialised services; high skilled labour work force, and top service equipments and facilities for boat maintenance. The regional boat traffic around Thailand, Singapore, and Hong Kong is vital for the Thailand marina industry. Because Thailand offers the best repair facilities in the region; cost was not a big factor in attracting the sailors.

#### **Creation Aseanarean Bluewater Alliance**

Boat Lagoon joined the regional marina partnership amongst Regional Marinas, ‘Aseanarean Bluewater Alliance,’ which offer guidance to attractive destinations, share local knowledge, and give special privileges for cruising yachtsmen and support cruising yachts. It is a network of premier cruising clubs & marinas established in 2012 by marinas around the region that serves as a strategic alliance amongst cruisers and marinas<sup>53</sup>. The regional bluewater alliance consists of 10 Asean countries: Cambodia, Laos, Indonesia, Brunei, Malaysia, Myanmar, the Philippines, Singapore, Vietnam, and Thailand. This alliance is considered world’s highest marine biodiversity with an all-year-round sailing weather.

---

<sup>53</sup> ABARYSNC (ABARYSNC). "Aseanarean Bluewater Alliance." Retrieved 05-03-17, from <http://www.the-aba.com>.

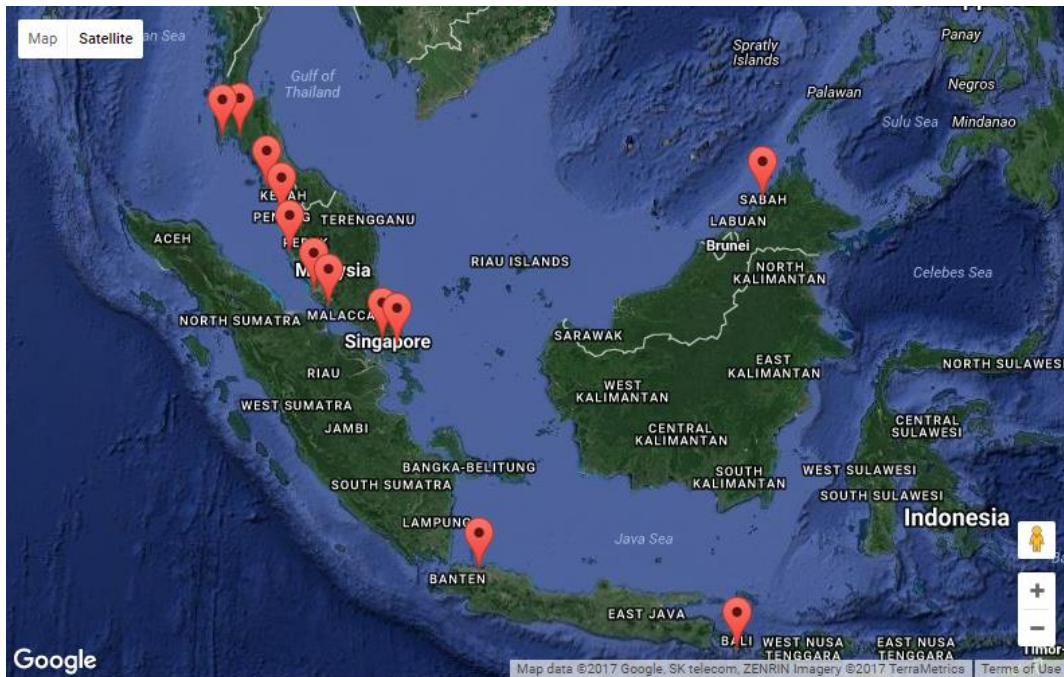


Figure 4. 3– Aseanarean Region Alliance

Source: <http://www.the-aba.com/>

#### 4.4 Case Study – B

##### Khun Sitt Polcharoen – Royal Phuket Marina on 4<sup>th</sup> March 2017

Khun Sitt, General Manager of Royal Phuket Marina (RPM), is responsible for the overall development of marina for RPM. He oversees everything, from marina design and structure to the process of acquiring marina construction permit. Khun Sitt is currently one of the highly respected developers in Phuket.

##### **Marina Key Success**

Khun Sitt believes that developing a marina on its own would not be feasible due to the magnitude of the investment involved, but developing a good mixed-use marina would be ideal and is the key to success. Due to Thailand's geographic there are still areas with good land & sea accessibility for boat entrance and exiting the marina to be developed on. Accessibility is very important as this also determines the success of a marina. As part of the development, offering a full servicing maintenance facility to sailor had proven successful and is the best way in bringing sailors back. The facilities from berthing docks, pontoons and utilities must all be up to standard to support the expensive world-class yachts. As already mentioned,

developing a mixed-use marina would include not just the servicing facilities for the boats but also other convenient stores for the sailors; e.g. supermarkets, restaurants, hospital, retail venues, and must be within reach of a local town. Developing a marina nearby a centralised area and an airport would be ideal as is offering a one-stop service, and building a community within the marina for sailors.

As part of the mixed-use concept in developing a property within the marina, the marina is used as a magnet to attract people to real estate offering the marina lifestyle. Khun Sitt says that 80% of real estate at Royal Phuket Marina were sold to people without any association to boats or do not even own a yacht. Because of the surrounding environment, people chose to buy and live in a marina. Royal Phuket Marina offers the boatmanship feeling to sailors developed a community within the marina.

### **Future Marina Development**

Mixed-use marina, with good in-line transfer/sea transfer accessibility, is the only way forward for any future marina development in Thailand. The depth of the berth docking and facilities within must be able to cater to international standard super yachts. Just like cars yachts are increasing in size, which means the depth required for those to dock would need to be considerably deeper. Offering residential from hotels, condominiums to retails to the sailors, and a full maintenance with high standard utilities are necessary. The marina on its own will help increase the value of the project (real estate) attracting people to the marina lifestyle and transforming the market to a different level.

Supporting industries are important in driving the success of a marina, i.e., using the commercial/retail area as well as offering small contractors from (engineers, skilled labour workforce, electricians, craftsmanship and boat captains available for boat maintenance yard service. Another key aspect of the supporting industries in a marina would be brokers and insurance yacht charters. According to both interviewees for this research, how money is spent on a boat would change hands over six times; e.g. 1 baht spent on a boat for repair will change hands six times from

one sub-contractor to another sub-contractor working on other task. This again illustrates how important marina is for the local economy; as part of the government agenda in future marina hub development this would lift the standard of life for locals living on the island.

#### **4.4.1 Case Study – B**

##### **Interviewed: Khun Wirachai Pranveerapaibool on 4<sup>th</sup> March 2017**

Khun Wirachai is the architect for Royal Phuket Marina during the development period. Currently, he is also a major developer in Phuket with an established hotel in Phuket (Foto Hotel).

According to Khun Wirachai, obstacles for a marina project are widespread, ranging range from solid financing, long-term investment, administration management (skilled labour), and services, to environmental regulations. He explains the difficulties in finding a skilled workforce for yachts maintenances and the administrative issues derived from the overwhelming amount of additional paperwork for yacht registration and permits for a marina business. The long approval process for any major coastal development is another main point. Hoping for government backing in such developments with the intention of making Thailand a marina hub of Southeast Asia, any future for the coastal development should receive with quicker decision-making process along the way with local authorities, he said.

##### **Marina Key Success**

Khun Wirachai was very positive about the idea of further marina developments in Southern Thailand. He very much believes that there are still lots of potential in Thailand for such an industry to grow and something, which will bring in amount of needed cash to the economy as a whole from both servicing the boats and real estate development. Khun Wirachai, like the others we interviewed, believes that Thailand's Marina Industry is still considerably small, but notes the increase in foreign vessels entering Thai waters spending an average 100,000 baht per boat and most of the time would leave their boat for servicing and maintenance at least six

months. With government help in promoting Thailand as the marina hub of the region, the vision in turning Thailand into a marine tourism gateway of Southeast Asia is more than likely. However, he stressed the need to address the lack of marina management skills amongst the local Thais, which is because it is a niche market and still unfamiliar in Thailand. It would prove harder to target the local market but luckily the fact that this is already popular amongst tourism it would make it easily manageable and with potential for quick growth.

Understanding the demographics of the location or site where a marina is being developed is vital in marina development. Protecting the local community and minimising impact to the seabed is very important. Khun Wirachai says there are two major factors in ensuring the key success of a marina development:

1. External factor – water channels for easy boat access
2. Internal factor – conceptual/method of construction. Analysing and preparing the best conceptual design to develop the particular marina to achieve the best marina type that suits the local environment. Working around the cost of land to determine the method of construction for the marina.

Another important key to success is being able to buy back land at the best possible price before developing a marina to be able to return the high investment needed for its development.

### **Type of real estate best suited for marina development**

Royal Phuket Marina (RPM) does not consist of hotels but developing a hotel, as part of the mixed-use marina is vital. RPM does have retails with a boat walk area offering restaurants, tour operators, condominiums, townhouses, and villas. However this is not recommended because of the space required and the pricing, which will have to be over the threshold to cover the cost of land.

Other marinas, semi-developed by the local authority Ao Chalong Yacht Club in Thailand, has not been very popular amongst international sailors probably because of the lack of investment provided to the facilities/utilities that they offer to

international yachters. Research conducted by RPM found that most of the yachts docked at their marina are only used for less than two weeks per year. The rest of the time, the owner would just leave still while they return to their home countries.

Overall, site analysis can be considered as one of the most important procedures in marina development process. Studying the site location, not developing somewhere isolated from everything else, the waterway with easy access for boats to enter and exit marina is also vital (close to international airport). Majority of sailors are Europeans with a rich seamanship history, followed by Australians, Singaporeans, and Hong Kongers. All has been influenced by their colonial past.

#### **4.5 Case Study – Marina Overview Physical Setting**

##### **Khun Matthew P.Na Nagara – Port Takola Yacht Marina & Boatyard Krabi on 6<sup>th</sup> March**

Khun Matthew is the owner of Port Takola Yacht Marina & Boatyard in Krabi. Khun Matthew is also the President of Thai Marine Business Association (TMBA).

##### **Marina Key Success**

Khun Matthew believes that Krabi will be the next upcoming marine tourism destination. He looks to Phuket Boat Lagoon as role model for his own mixed-use marina development. He stressed the importance of the location of marina site for development, since Thailand has limited sites suitable for such development because of the water channel for boat accessibility. Another important factor, which was not mentioned by others, is the importance of having a supportive local infrastructure e.g. water supply and electricity available, he said. His main objective in developing a marina is to promote Krabi as a whole and develop his land into a trademark location thereby increasing the value of land around Krabi. In short: geographic location, surrounding environment, ocean landscape, and the growth in the yachting population. After such analysis, he became convinced that the time is ripe to develop Krabi as an international yachting destination.

### **Type of real estate best suit marina development**

Port Takola Yacht Marina & Boatyard will be including a hotel as part of their mixed-use marina in Krabi, but since Khun Matthew is still in the process of developing his marina, he could not able go into details such as the overall size of the marina real estate section. However he did stress that all types of real estate would be ideal for development within a marina.

### **4.6 Case Study – Marina Overview Academic Perception**

#### **Interview - Dr. Paithoon Monpanthong Associate Dean – Academic Affairs (NIDA) on 9<sup>th</sup> September 2016**

- Technical know how
- Environmental impact
- Economic benefits

Each marina in Thailand has its own distinct points; e.g. Phuket Boat Lagoon is noted for its well maintenance facility service while the Royal Phuket Marina focuses on a different market group (high-end/ultra-wealthy group). But, many important factors still have to be taken into account when developing a marina.

1. Space for berthing dock both wet & dry
2. Maintenance facility service

Yacht tourism has been on the rise amongst the fast growing economies (countries) of the world and the elite groups but more are turning to Southeast Asia nowadays. There has been an increase in number of yachts entering Thai harbours in the past decade. On average, each yacht would spend around 100,000 baht per boat per stay in Thailand according to the Tourism Authority of Thailand and the amount is predicted to increase to around 300,000 baht per boat per stay in Thailand in the near future.

## 4.7 Chapter Summary

Insights in demographics of visiting yachts by registered country based on the interview results from marina experts in Thailand: One common factor from the graph below is that majority of the registered sailors are from Europe, which has a rich history of seamanship and can be related to their colonial past. The only two Asian countries, Hong Kong and Singapore, also have histories that can be traced back to its colonial influences. According to the marina experts, sailors from both of these locations are British.

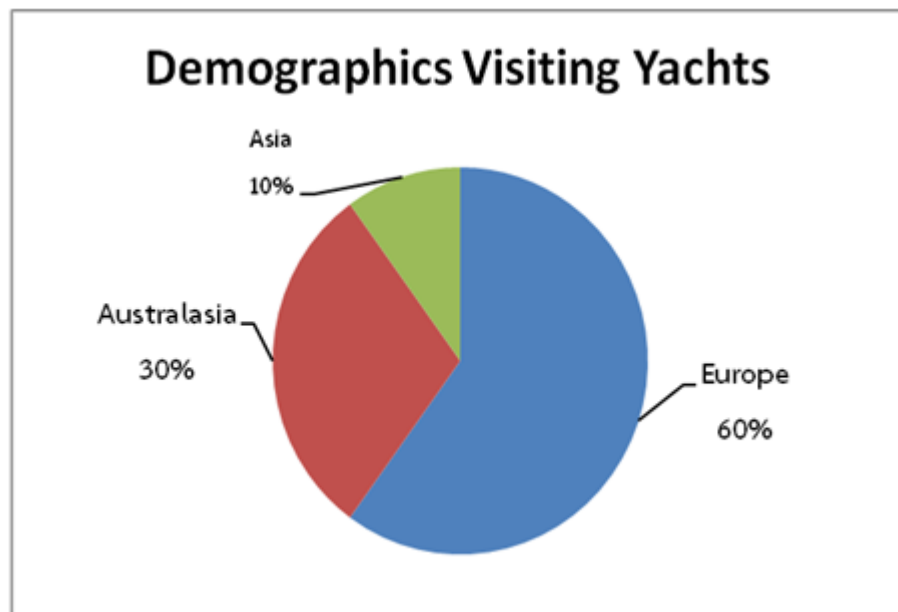


Figure 4.4 – Visited Yachts by Registered Countries

Source: Interviewing Khun Boon Yongsakul & Khun Sitt Pholchareon

By looking at the graph we can understand the behaviour of sailors that matches with their countries' environment behaviour. As shown in figure 4.6, Europeans rank high among the visiting sailors. European countries mentioned in figure 4.6 consist of UK, France, Italy, Spain, Austria, and Germany, which make up 60% of the foreign yachts; followed by Australasia (Australia and New Zealand), which take around 30% of the market, while within Asia, it is mainly (Hong Kong and Singapore), at about 10%. The British are already amongst the highest visitors to Thailand, according to word-of-mouth amongst visitors, review from articles, online



blogs, and online cruising guides such as ‘Southeast Asia Pilot by Bill O’Leary & Andy Dowden’<sup>54</sup>. All these literature have been the main source of information for the majority of people to sailing to Thailand. On the other hand Australia, which has a similar climate to Thailand and has lots of marinas of its own, enjoy sailing to Thailand and experience the service level we provide. According to interviews, registers yacht owners would store their boats in the hardstand in Thailand for at least six months before returning for just two to four weeks to cruise then fly back to their countries, leaving the subcontractors (captain & boat brokers) to rent out and maintain their boats. They would return to their yachts in Thailand during their countries’ winter season to enjoy the year-round cruising environment in Asia and then return.

#### **Sailor’s behaviour at Marina**

During the interviews, the marina experts were asked about the sailor’s behaviour toward their marina facilities. Below is a graph break down of main facilities used by yacht owners.



---

<sup>54</sup> Dowden, B. O. L. A. (2016). "Thailand." Retrieved 15-10-2016, from <https://www.southeastasiapilot.com/index.htm>.

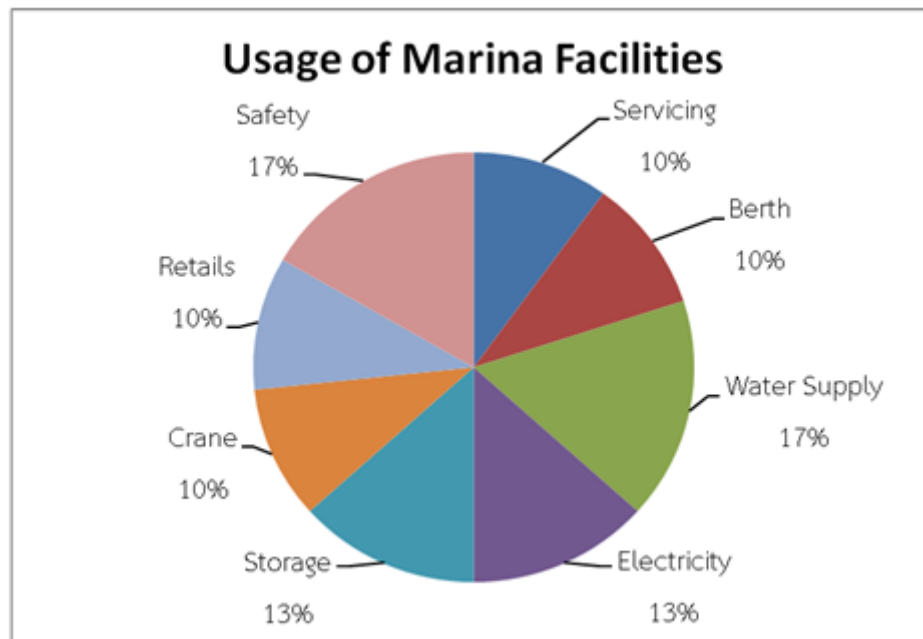


Figure 4.5 – Most used Facilities in Marina

Source: Interviewing Khun Boon Yongsakul & Khun Sitt Pholchareon

#### 4.8 Business Model – Development Process

Based upon case selected case studies Phuket Boat Lagoon and Royal Phuket Marina both lack the support from the government agencies in creating a clear sustainability goals as part of their development. As goals like reducing energy consumption, increase impact and awareness of corporate social responsibility activities, help promote and understanding of sustainability, increase supply chain sustainability and as well as increase client's awareness of sustainability<sup>55</sup>. Overall as part of the business model a sustainable development standard is to be set up in accordance to the global sustainable development standards and within the marinas should be sustainable projects requirements as part of new developments. Such standards can be based on the energy and environmental design, promoting the health and safety principles, water & energy efficiency as well as indoor environmental quality. Promoting the use of sustainable materials and stress the importance of waste management.

<sup>55</sup> Teng, M. K. (2014). "Marine Tourism: Development, Impacts and Management."

#### 4.9 Interviewee Management Levels

Table 4.2 – Interview Management Breakdown

Management Level	Case Studies	Phuket Boat Lagoon	Royal Phuket Marina
Khun Boon Yongsakul Deputy Managing Director	<ul style="list-style-type: none"> <li>- Stress the importance of Real Estate</li> <li>- Surrounding Attractions</li> <li>- Mix-use concept</li> <li>- Sea / Ocean safety measures</li> </ul>	✓	
Mr. Wicky Sandram Executive Director	<ul style="list-style-type: none"> <li>- Sees Thailand has the potential as marina hub</li> <li>- Thailand still lacks marina</li> <li>- Thailand offers the best repairing facility</li> </ul>	✓	
Khun Matthew P.Na Nagara Marketing Manager of Port Takola Yacht Marina & Boatyard	<ul style="list-style-type: none"> <li>- Believe Krabi is next marine tourism destination</li> <li>- Mix-use marina concept</li> <li>- Importance of local infrastructure</li> <li>- Lack of local authorities support</li> </ul>	✓	

Table 4.2 - Interview Management Breakdown (Continue)

Management Level	Case Studies	Phuket Boat Lagoon	Royal Phuket Marina
Khun Sitt Pholchareon General Manager	<ul style="list-style-type: none"> <li>- Marina on its own is not feasible</li> <li>- Berthing and pontoons must support super-yachts</li> <li>- Real Estate in marina sold to non-associate to boats</li> </ul>		✓
Khun Wirachai Pranveerapaibool Architect for Royal Phuket Marina	<ul style="list-style-type: none"> <li>- Lack of local authorities support</li> <li>- Lack of Marina Management skill</li> <li>- Faster decision-making from government agencies</li> <li>- Believes Thailand capable of being marina hub</li> </ul>		✓
Dr. Paithoon Monpanthong Associate Dean – Academic Affair NIDA	<ul style="list-style-type: none"> <li>- Technical know how</li> <li>- Environmental impact awareness</li> <li>- Economic benefits</li> <li>- Maintenance facility</li> <li>- More involvement from the government agencies</li> </ul>	✓	✓

Above table illustrates interviewees from all different managerial backgrounds from the owner, executive director, general manager, and marketing manager to the architect of the project to an academic. All have one thing in common is the lack of support from the government agencies both at the national and local levels. Out of eight different facilities available for yacht owners, each are broken down as follows: yacht owners find water supply and safety their main priority; then electricity and storage (hardstand); followed by crane, service maintenance facility, and other retails within the marina. Sailing access to clean water is vital and once they dock their boat, the area must be safe from both the environment and the surroundings. Interviewing the marina experts provided us with insights on the personal priorities of yacht owners during their visit to the marina. Overall visitors were satisfied with the available facilities at the marinas and happy with the growing demand in the industry. Just like vehicles, yachts are increasing in size; meaning larger berths are required, and large slip-crane for super yachts with more and larger hardstand boat storage facility are required for future demands. It is clear that there is still room for improvement in the process of collecting and promoting knowledge and ideas to the locals surrounding water body and coastal areas, which can support the future on social, economic and environmental awareness.

## Chapter 5 – Case Studies Analysis

After onsite visits to both marinas in Phuket, along with first-hand interviews with marina experts in Thailand mentioned in the previous chapter, four will be used to conclude the overall research findings in accordance with the research objectives below:

### 5.1 Summary on first research objective

### 5.2 Summary on second research objective

### 5.3 Development Concept Macro View PESTLE Analysis

### 5.4 Development Concept Micro View – SWOT Analysis

### 5.5 Limitation of Existing Marina Industry in Thailand

### 5.6 Marina Development Process

Table 5.1 – Research Framework

Objective	Main Variable	Secondary Variable	Research Methods	Academic Papers	Research Tools	Findings
Develop a sustainable process for developing a marina and determine best managing style for Marina sector in Thailand.	Environment/ Explore gateway community issues	Location Analysis / Management & planning basics	Primary Research Observation (site visit) Interview Marina owner	Established Marinas around the world	Academic Papers from established source	Identify current (tourism, infrastructure, local and foreign yachting history)

Table 5.1 - Research Framework (Continue)

Objective	Main Variable	Secondary Variable	Research Methods	Academic Papers	Research Tools	Findings
	Observation	Location / seabed / Breakwater (Structures)	Secondary Research - Site Visit - Interviews			Analyse current & past leisure vessel density in traffic
Illustrate the values of marina and understand the marina sector in Thailand compared to other regions.	Explore opportunity arising with marina	Gather visions, plans, actions, and support stance for marina development		Analyse perceptions from local and foreign private marina users regarding facilities and improvements		Development Plan & Process / local traditions & heritage

This chapter focuses on the research finding and propose the ideal development concept from all the facts accumulated in detail. Development concept will be presented using PESTLE analysis method with recommendations to support future marina developments.

Before getting into the PESTLE analysis method, let us understand what a marina is again. According to starting business, the definition is that ‘marina is an area or dock where yachts and other small vessels can dock for re-supplies, refuel and/or

maintenance'<sup>56</sup>; it is a place for crewmembers and yacht's owner to spend time at the marina.

### 5.1 Summary on first research objective

After researching and observing the local marinas, we can conclude that future marina developments must be sustainable and must use the best managing style suited for the marina sector in Thailand. Firstly looking at sustainable theory, there is a book written by Dr. Ralf Heron and Wael Juju elaborating the importance of sustainable development for a profitable marina business. In other words, the importance of developing marina facilities and structures to reduce their impact to the environment and ensure the protection of water quality<sup>57</sup>. Overall, the land used to develop marina structures and the landscape and maintenance are all important in obtaining a sustainable marina. According to Dr. Ralf Heron, sailors are not only looking for the basic facilities, cleanliness, and safety at a marina but also for other leisure facilities for their family as a whole such as restaurants, retail shops and/or repair facilities. Sustainable developments are usually measures by an international organisation (Blue Flag), which promotes such development for marinas to achieve high standards in water quality, environmental management, safety procedures, and education on environment<sup>57</sup>.

On the other hand, the best marina management style in Thailand would be after the American/Australian styles, which are service base management similar to hotel management. These styles would best suit Thailand marina operations, our research shows.

---

<sup>56</sup> Business, S. "What is a marina." Retrieved 10-01-2017, from <http://www.myyachtregistration.com/3565/marina/#>

<sup>57</sup> Juju, D. R. H. a. W. (2012). *The Marina: Sustainable Solutions for a Profitable Business*.



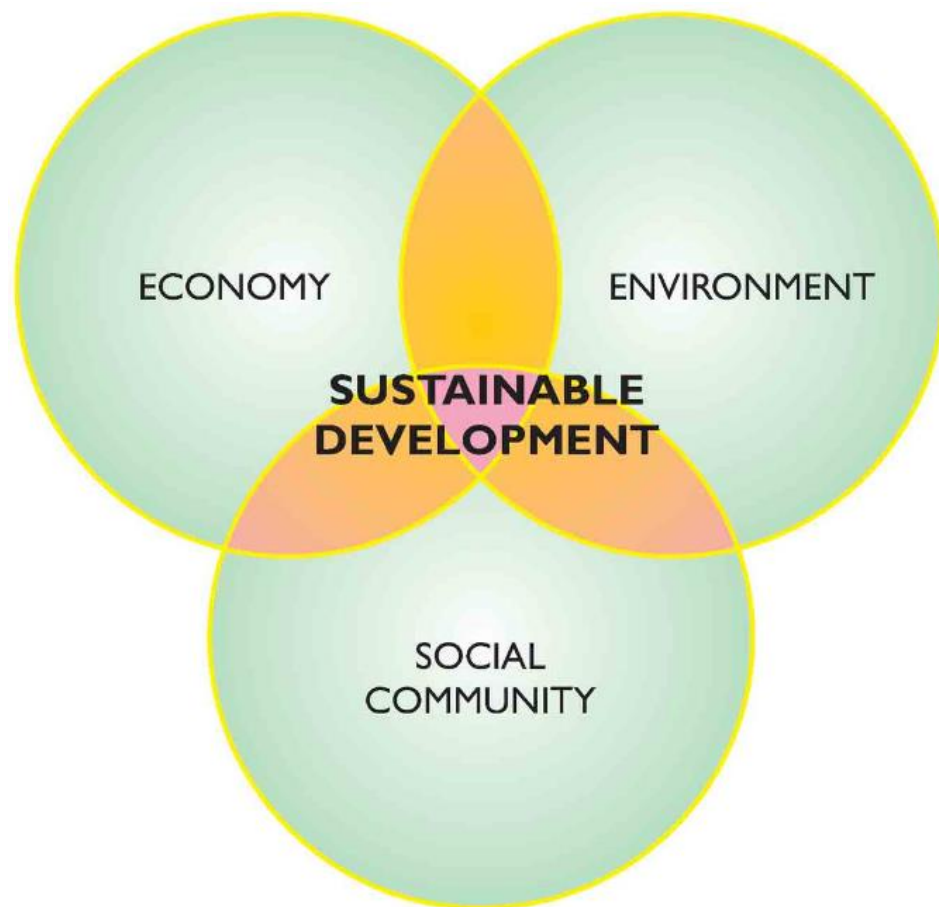


Figure 5.1 – Sustainable Development

Source: [http://eastriding.limehouse.co.uk/events/2359/images/highresRGB/163780\\_1\\_0.png](http://eastriding.limehouse.co.uk/events/2359/images/highresRGB/163780_1_0.png)

### 5.1.1 Sustainable Development

Sustainability has long been the backbone of our nation because they allow the local community to develop their own skills and services. In today's world, globalisation along with technological advancements has brought people from different geographic locations together; while at the same time making national boundaries seem meaningless, e.g. the AEC agreement allowing free movement just like the EU. This results in raising the bar of competitiveness from the local level to make them at par with international standards. Working closely, government agencies are making sure a policy is implemented to support such development for long-term sustainability. In this case, policy makers should be associated with the developers from all the stakeholders, both public and private sectors, to get a fair referendum

on the development. As part of the policy formations, all should be taken into account:

- Ensuring that the local community is involved from the start and throughout the project
- Environmental treats are all addressed
- Local culture and diversity of the local area are kept unchanged
- Projects are overall sustainable and well managed
- Local benefits from revenues

Improving local infrastructure and not leaving the communities behind as part of real estate developments would help take the local housing market to a different level while at the same time making sure all the development are under control and not over-developing. Other key factors in marina developments that have to be taken into account to make them sustainable includes water quality, bank erosion, sedimentation, construction disturbance, loss of amenities, visual intrusion, and traffic congestion<sup>58</sup>.

Sharing the profit by making sure necessary local facilities are developed and giving the locals opportunity to work at the marina are necessary. Sustainable development can also help spread the growth of local businesses, improve the lifestyle of locals, and ensure the protection of the environment. As part of such development, managing the growth of tourism is vital. Sustainable tourism development with least impact to the local society and the environment is important for the long-term. As part of a regional collaboration amongst the marinas, the Aseanarean Bluewater Alliance established in 2012 is a network of cruising clubs and marina to promote sailing in the region, which is acknowledged to have the world's most marine biodiversity<sup>59</sup>.

---

<sup>58</sup> Monpanthong, D. P. (2015). "Yacht Tourism Policy & Development. Ministry of Transport Thailand."

<sup>59</sup> ABARYSNC (ABARYSNC). "Aseanarean Bluewater Alliance." Retrieved 05-03-17, from <http://www.the-aba.com>

Public-Private Partnership cooperative arrangement between public (local) and private sectors helps in developing a particular project with long-term sustainable development. Based on the past developments by the Asian Development Bank, the following are the motives behind engaging in a 'Public-Private Partnerships':

For infrastructure developments with initiatives to attract private capital investment to supplement public resources – Involving the public (local) as part of the stakeholders would increase efficiency and maximise the use of available resources, and finally promote reform in the public sectors through incentives and reallocation of roles. As part of sustainable development, to involve the local with the private sector from the beginning of the project and having the public monitor the progress of develop would help ensure the avoidance of future conflicts.

As part of PESTEL analysing the overall aspect of local marina development in Thailand as mentioned above – this study and interviews are significant in that they illustrate the important contribution of yacht tourism to the Thai economy; with high spenders coming into Thailand and willing to spend money for services.

## **5.2 Summary on second research objective**

Throughout the research, I was able to identify a number of values and factors in the marina sector in Thailand as compared to the marinas in other regions, and especially marinas around our neighbouring countries. The mix-use marina concept has proven to be the ideal model behind marina success with following three measurable indicators: financial returns, social returns, and economic returns. Based on a research conducted by Dr. Emma McKinley, the future of a sustainable marina industry hinges on marina mix-use, or in other words used amongst the marina industry, Marina Clusters<sup>60</sup>. The marina cluster is used to define all associated

---

<sup>60</sup> McKinley, D. E. (2013). "Marina 2020: A vision for future sustainability of Channel/Arc Manche Marinas." (University of Chichester).

businesses within a sector that somehow are linked in achieving the same goal and benefits by collaborating<sup>61</sup>. Out of the three indicators the financial returns as well as social returns are clearly measurable. Land prices within and around the marina being developed in Thailand increase rapidly. Marina development requires high skilled labour, and that potentially increases the revenue of the entire local community. Because the industry is still limited slowing down marina development in Thailand would help create a more competitiveness advantage within the marina sector. Because of mix-use within the marinas, other tenants such as brokers and using the names of other businesses will add value to the marina sector. Real estate within a marina has proven to be the most important value for a profitable marina business. Marina requires a high investment, which is a long-term investment and so adding real estate to the project is a way to ensure return of investment as well as adds more value to the project and land. At the same time increasing the opportunities for new SMEs amongst the locals strengthens relationship with the local authorities, which lead to a supportive attitude toward the marina sector. Thailand still lacks marina managerial skills but due to the geographical location of Thailand as compared to other regional countries, it is in the best position to be the marina hub of the region. According to Tourism Authority of Thailand, the number of tourists entering Thailand is only predicted to rise -- and this includes visitors under marine tourism. However, compared to other regional countries, the prospect of building more marinas in Thailand is limited because of the seabed. Most of the coastal areas in Thailand have very shallow seabed, which means that super yachts may not be able to dock.

---

<sup>61</sup> Chang, Y. (2011). "Maritime Clusters: What can be learnt from the South West of England. *Ocean and Coastal Management*." **54**: 488-494.

### 5.3 Development Concept Macro View - PESTLE Analysis

PESTLE analysis did not originate as such method but was pioneered by a mixture of different analysis methods. The main person behind the actual analysis was Francis J. Aguilar back in 1967, an American scholar for strategic planning and general management. It all started by him discussing the environmental factors impacting businesses and gave up with acronyms 'ETPS' indicating as listed below<sup>62</sup>.

- Economic
- Technical
- Political
- Social

Later on in the 1970s, Arnold Brown--a publisher for institute of life insurance in America--did further studies and focused only again on the environmental factors came up with STEPE (Social, Technical, Economic, Political and Ecological)<sup>63</sup>. By the late 1980s, people were using and mixing up both Aguilar and Brown's acronyms, before finally scholars decided to agree on using PESTLE Analysis. PESTLE Analysis is combination of six different factors<sup>64</sup>.

#### Political Factors

This has proven to be one of the major factors amongst all the others, especially for Thailand for the past decade with the unstable political unrest in the country. While there has been numbers of major political swings and military interventions, all the turbulence seems to have been centralised only in Bangkok. On the other hand no matter the political changes within the country, it is important to keep updated on any new or potential policy changes that may be occur at the highest level, which can have serious implications on such developments. At any given time the government may change their priorities resulting in new initiatives,

---

<sup>62</sup> Aguilar, F. J. (1967). *Scanning the Business Environment*. New York, Macmillan Publishing.

<sup>63</sup> Jr, D. J. V. R. (2016). "A Brief Intellectual History of the STEPE Model or Framework." Retrieved 10-02-2017, from <http://polaris.gseis.ucla.edu/jrichardson/STEPE.htm>.

<sup>64</sup> FME, T. (2013). *PESTLE Analysis Strategy Skills*.

which can be in environmental regulations, employment regulations, taxation regulations, health and safety requirements, and/or maritime laws. In Europe, the European Union was set up to help prevent such incidents and allows such large-scale development to go through with no impact to the operations.

### **Economic Factors**

Developing an economically sustainable project includes diversifying the source of income and the marina industry as a whole. A mix-use marina development includes variety of different industrial sectors as well as lifting the standard of the local community and promoting tourism in Thailand. Developing the local infrastructure to provide job opportunities as well as developing local skills for the community to be able to provide services of all sorts to the marina at the same time to attract foreign vessels to Thailand. Other issues would include assessing the potential changes to the countries' economy as a whole and monitoring the inflation and interest rates, exchange rates, and taxes. Because the marina industry in Thailand will most likely focus on foreign vessels monitoring, the local cost of living may not be high on the list. However as part of target market evaluation, the local credit and finances must be properly analysed. Because this will involve high labour skill, knowing the unemployment rate, local skill levels, wage patterns, working practices and the local labour cost structure must be studied. Before all can be finalised, official economic indicators, such as the GNP (Gross National Product) and GDP (Gross Domestic Products), will determine the consumer base indices. All this must be taken into account and the economy must be studied at both level local and globally since such industry revolves around the ultra-rich. Global financial meltdown, European political crisis, or war can have an effect to the tourism industry. Finally, as part of developing a local community as well as bringing in tourism, destination management plans, and focusing on sustainability and protecting the natural environment<sup>65</sup> should be considered to enhance the economic success.

### **Social Factors**

---

<sup>65</sup> Morrison, A. M. (2013). *Marketing and Managing Tourism Destinations*, Routledge London and New York.

The social factor can cover a wide range of different aspects. However, we would only focus on the ones that have an impact on our industry market. Because we are developing in a local community, understanding their attitudes toward the development as a whole is vital. We must understand and study the local needs, careers, and environmental issues, and help overcome them because they can have a major impact to the development on the long-term if proper research and steps are not taken at the early stages. A dedicated communication team should be assigned to work closely with the local community to understand their way of life, local income statistics, education and career trends, local religion and local cultural conventions.



### **Technological Factors**

Due to the pace of technology change in the present time, it is important that everyone is aware to avoid unexpected circumstances. By using the PESTLE technique, developers can dedicate a tech team to brainstorm and keep up with all the changes and avoid encountering the unpredictable. Most likely, technology can be key role in supporting the infrastructure of the marina during development. As well as bringing in automation, and improving the quality of ports, it could help cut the project's cost. Technology can help study and develop the marina in sites, which could not be done in the past therefore creating more opportunities to both the investors and country as a whole. Technology can be a tool but can backfire if ignored. Developers need to be aware of any potential legislation that either local or national governments could introduce as part of tools to contain the rapid changes of technology.

### **Legal Factors**

The legal aspects of a marina development are directly influenced by the effectiveness of its management. Once the marina is established, the management must illustrate the sustainability of the facility. Recently authorities around the world have been taking tougher measures and have been setting up a number of regulatory bodies to monitor all areas of operations, which means developers will have to be

well aware of all the regulations. This can include consumer protection, employee welfare, and waste disposal as well as how the investments are taxed. Again with PESTLE analysis must be considered from global regulations, global safety compliance, and laws affecting relationships amongst other organisations. Before any decisive decision are made all regulations, both at regional and national level, must be looked upon and become part of the operational development process strategy.

### **Environmental Factors**

The main issue around this revolves on how the environment is managed, what type of tools are used to prevent any harm to the environment or related problems the major developments might cause, and how to reach the goal of sustainable development<sup>66</sup>. Studying the local weather changes patterns and climate cycles as well as the sea wind as part of the operations would be vital for long-term project sustainability. Waste management<sup>67</sup> and its environmental consequences -- because this will be developed on an island -- is important. Technology may be applied to this to minimise some manual work and better manage environmentally damaging wastes. Another significant issue to address is the impact of uncontrolled development, which normally originates from mix-use social-cultural developments.



---

<sup>66</sup>Indhira E., R. A., Pongsak A., Sirikarn C (2012). "Environmental Impact Assessment in Thailand.

<sup>67</sup> Hernández, M. G., & Martín-Cejas, R. R. (2004). "Incentives towards sustainable management of the municipal solid waste on islands. Sustainable Development." **13**: 13-24.



Table 5.2 – PESTEL Analysis for Marina Development in Thailand

	Political	Economic	Social	Technological	Environmental	Legal
<b>Manageable (Internal)</b>	Build good relationship with local authority and community.	Destination Management Planning Sustainable Development Developing the local infrastructure Evaluate local credit and finances	Local Communication Team Town Service Infrastructure (Tourism & Marine) Transport / Traffic Infrastructure Attractive Tourism Locations	Improper Waste Management. Development of Marine Tourism Strategy. Qualitative Improvement Entertainment Infrastructure Study local infrastructure and sea waves.	Water Space / management Marine Associated Services Waste Management Seabed	EIA Local Regulations & Planning
<b>Unmanageable (External)</b>	Unstable political unrest. Investor Uncertainty or Loss	Monitoring the inflation & interest rates, exchange rates and taxes. Global financial meltdown Europe political crisis. Risk to Identify Loss Global Conflicts	Local community life, local income statistics, education and career trends, local religion and local cultural conventions. Geographical Location (Gateway) Community Support	Traffic Infrastructure Local government introducing tools to contain the rapid changes of technology	Environmental Threats Climate Uncertainty Increasingly Popular Destinations Wind & Wave study	Stakeholder Conflicts Administrative & Legislative Obstacles

Overall, PESTEL Analysis helps determine all the unmanageable developments that may arise, such as major factors within a city, which has to be dealt with. A strategy needs to be agreed upon to be able to manage impact of such development to a city. At the same time PESTEL analysis helps identify the risk of over-development with only profit as consideration, which can have an impact on the tourists. It demonstrates an overview of all aspects of local marina development.

#### **5.4 Development Concept Micro View – SWOT Analysis**

After looking at the macro prospective of marina development, this section will summarise and focus the micro prospective of the development using SWPT matrix. This will provide the over view of the development and the feasibility including recommendations to support the marina development.

**Strength -** The biggest strength is the geographical position of Thailand as the marina hub of South East Asia and the path for the cruising pattern of the area. For sailors the one of the most important factor in deciding on the port to dock is the geographic location, climate of the local wind regime and lastly the nearest airport once they dock the yacht. Most of the time the sailor would dock their boat and return to their destination by plane. Another important factor is the surroundings attractions making it attractive for the sailors to dock their yacht. Another strong advantage is the all year round weather in Thai waters allowing the sailors to be able to enjoy the sailing throughout the year according to interview with Khun Boon Yongsakul.

**Weakness -** Thailand is facing the shortage of berth storage especially for the larger size yacht or super yacht according to the interview with Khun Sitt Polcharoen. As well as limitation in coastal development due to the available area which are suitable for marina development. However this can be overcome by initial study and turning to floating marina rather than an in-land marina. Thailand generally has a rich traditional fishing agriculture which again lacks a marine and coastal zone development strategy that would recognise the sustainability development efforts.

**Opportunities -** Currently with the help and backing of the government Thailand marina sector is surely to get all the publicity and support in developing

marina. The environmentally sensitive issues along with involvements of both local authorities and communities can be issued. With such effort the private sector has been eager to invest in such developments and this would fit perfectly with the government initiative of promoting Thailand as the marina hub of the region. This will also create an opportunity for the local redevelopment of boatbuilding industry since Thailand also has a rich history of boatbuilding in the past was an active vessel producers with the local boatbuilding knowledge is a valuable asset to support the local communities. Thailand compared to neighbouring established boating market e.g. Singapore and Hong Kong is still relatively cheaper overall.

**Threats** - The major concern is the environmental impacts if the development does not get proper support from all parties leading to uncontrolled development. The marina sector must define all the strategies including acceptable limits of changes to local habitats which is all part of the marina management. At times the potential marina area can also be used by local fishing industry or leisure activities. The risk of losing the local identity or culture heritage is also a concern. As tourism can be socially, economically and environmentally powerful, if the developers are too profit-orientated and overlook the local socially and ecological environment. This could lead to local losing its original identity either by social structure or in the economic sector. Finally marina development has a high entry barrier due to high investment with high competition & expectation from regional level. The global economy and global conflict would also have an impact on the marina demands since this is a high luxury market<sup>68</sup>.

### 5.5 Limitation of Existing Marina Industry in Thailand

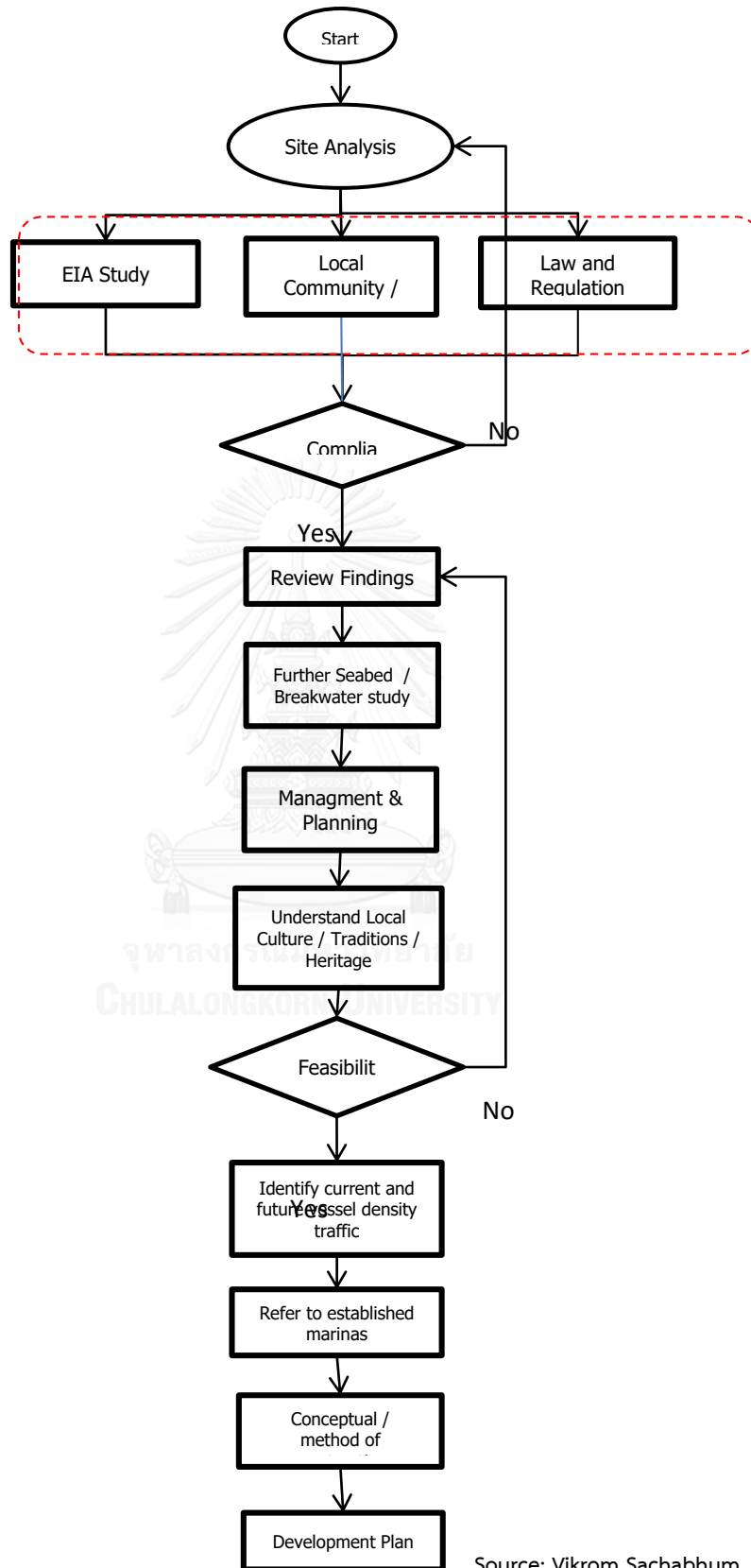
The main limitation for the existing marina industry in Thailand is the know-how; the management skill to operate a marina on a regional/global scale. Based on the research, available facilities such as harbour entry, berth spaces, and hardstand for long-term storage require specialised expertise. And so does general waste

---

<sup>68</sup> Payeras M., M. J., M.A. Garcia, M. Alemany, A. Alocover and L. Martinez Ribes (2011). "The Yachting Charter Tourism SWOT: A Basic Analysis to Design Marketing Strategies." 6: 111-134.

management and weight limitations of cranes. Meanwhile, maintenance facilities are still limited and not catered for larger boats (superyachts) with only a few available in the country. As well, creation of a maritime industry cluster and recognition of international events such as the regattas, are picking up. The marina industry in Thailand still lacks the security of sustainability, with the majority still independently developing to each its own potential within its area and only a few developing facilities beyond the limitations and involving local communities. There is also the lack of adaptation to the local environment but having to lead the trend and expand to the locals. All this has been an issue due to lack of government support for any industry initiatives. However, all this is changing and Thailand has never been more attractive amongst the marina industry regionally than ever. Overall, Thailand faces limitations in gateway locations for marina developments, spaces to accommodate boat storages, and the equipment for servicing facilities.

5.6 Marina Development Process



Source: Vikrom Sachabhum

The above workflow, which is only high-level, gives an overview of the process, which should be followed during marina development. Highlighted in red indicates the intense EIA study, which is given high priority since it will determine the whole marina project including the law and regulations involved for developing a marina. It can be considered as a mechanism or tool to outline all the fundamentals to develop a sustainable marina. To elaborate the sustainable development, this would include transforming local economy and planning. To create an economically sustainable as part of marina development it is vital marina sector diversify its industrial sector by involving the local as much as possible. Depending on the type of marina being developed, the laws and regulations will vary. If it were inland marina, according to the property and development, law would receive a better support from the local authorities compared to floating marinas since inland marinas will have less impact to the seabed and the sea environment as compared to floating marinas. However, in Thailand, the country's geographic land offers very limited options to develop an inland marina. Another very important factor that developers of floating marina are looking at is the cost of construction compared to inland marinas.

Finally, touching briefly on the visa process for sailors entering Thai waters: All boats must perform a 'check-in' process, which includes all captain/crew members to get off their yachts and ride a boat with the officials to the 'checkpoint' within the marine department to register their yacht/boat before being granted on-arrival tourist visas. Based on the findings, the boat/yachts will automatically be granted 6-month permit to be in Thai waters and crews and captains will receive 3 months on-arrival tourist visas. The yacht's 6-month permit for your boat can be renewed for additional 6 months.

## Chapter 6 – Conclusion & Recommendations

Thailand tourism has always been important revenue-generating industry that has been helping drive the country's economy. In recent years, marine tourism has been on the rise and is contributing significantly to overall tourism income. There is therefore a need to harness its potential and encourage more marina-oriented developments.

For any future marina-oriented development, research has proven that a comprehensive approach and dynamic planning with a development strategy as part of the PPP is vital. Any future development strategy should be consistent with the local community and the tourism authority's goals while any land used for marina development should work with the coastal zone management plan under the local district authority. Since the government has been out in force promoting the marina sector, investors should further develop mix-use marina complex offering full facilities while working closely with government toward making the country a marina hub of the region. The key to the improvement is to work closely with the local administration and move together every step of the way to achieving sustainable development goals. Not just the regional government agencies, which are promoting marina sector in this region, the Singaporean Government is also actively promoting yachting industry in the region. Recently, as part of the government support, the government of Thailand came out with a new license that would allow foreign superyachts to sail in Thai waters as incentives to encourage foreign sailors to choose Southeast Asia over the Caribbean during the off season in the Europe. From the research regarding marina trends for Thailand, it appears that developers would prefer inland waterway marina over floating marinas. This is due to numerous factors with the cost being on top. However, inland marinas offer a better protection to bad weather. As mentioned earlier, marinas in Thailand need to increase the number of super and mega yacht berths as yachts are only increasing in size.

## 6.1 Overall Research Finding

A marina-oriented development does not only include harbour development, but from research, real estate must play a major part in the development. Due to the high investment involved in such projects investors would need to have real estate to help retain the investment. However marina development must be comprehensive and involves dynamic planning by developing a strategy. The strategy must be to some extent consistent with the local community tourism scheme. At the same time, the land-use plan must be in strict compliance with the local community gesture with a clear management plan worked out in partnership with local authority and community. This research is only based on two in-land marinas which does not represent the over majority of marinas in Thailand however because of its similarity and the success it has proven to be a well observed case study. Offering an inside to how an in-land marina is developed and some of the difficulties encountered during the development process.

### 6.1.1 Overall Research Finding Marina Financial

According to the Tourism Authority of Thailand, on average each visiting yacht would spend around 100,000 Baht per boat per stay in Thailand. The amount is predicted to increase to around 300,000 Baht per boat per stay in the near future<sup>69</sup>. Looking at the estimate income of a marina from research conducted along with interviews, this is only an estimation. Because marina is a long-term investment developing real estates e.g. hotels or residential around the marina is a way of generating cash for the investment which was on the marina. However long-term the main sort of income would be from the marina facilities. From all the berth available for rental to all the facilities such as water, electricity, fuel, towing services, maintenances and other facilities available in a marina.

Thailand is already a world-class tourism destination with many people visiting the country for its beautiful islands and beaches. According to the World Bank, the country's revenue from international tourism alone reached US\$37.7

---

<sup>69</sup> Monpanthong, D. P. (2015). "Yacht Tourism Policy & Development. Ministry of Transport Thailand."



billion in 2012 with the number of tourism arrivals reaching 26.7 million in 2013 – and the number is only going to increase. The fact that Thailand has the benefit of both the Andaman Sea and the Gulf of Thailand with a total coastline of 2,614 km -- out of the 77 provinces, 24 has coastal areas with total marine area of 316,118sqkm and around 936 islands<sup>70</sup>. These facts, along with the skilled work force in the country, have been the key motivation for both the government and private sector to turn their attention to the marina industry. As part of the research finding another tool or campaign in achieving a sustainable development procedure is an organisation called Blue Flag Campaign which promotes marinas around the world to comply with the international standards in sustainable development<sup>42</sup>.



Figure 6.1 - Thailand Coastline

Source: Department of Marine and Coastal Resources: Greenpeace

Environmental threat is considered the most important factor in developing a marina. All the tight environmental legislation must be of high importance as well as educating the local communities with guidelines on what they must do. It is proven

---

<sup>70</sup> Greenpeace (2012). "Department of Marine and Coastal Resources."

that the environment impact assessment is the most important process during the marina development process. To avoid uncontrolled development, developers are required to closely counteract with the legislation, marine department (permit), and other regulations. On the other hand, business feasibility in this instance would be after the EIA analyses, which is still considered an important tool in determining the development process.

Finally, we look at the financial benefits and how developing a marina contributes to the economy. Three different sources (Managing Director of the Thailand Yacht Show Andy Tradwell, Minister of Tourism & Sports Kobkam Wattanavrangkul and the Tourism Authority of Thailand Deputy Governor Noppadon Pakprot) confirm the plan to make Thailand the marine hub of Asia and agree on the benefits of being one. The potential financial economic gain for Thailand as a result of marina development would attract yachting tourism from all over the world. It is proven that a yacht tourist spends much more than any other type of tourists, with the average spending of a super-yacht owner between ฿35.45 and ฿70.9 million and leaving the yacht bases at the marina. Other direct economic benefits from developing a marina are: they help local businesses, and they create jobs as well as distribute sustainable income while at the same improving local infrastructure<sup>71</sup>. The marina industry has huge benefits for the country as a whole; lifting the Thailand tourism industry to the next level. Recently, the government has been trying to promote marine tourism in Thailand and as part of their strategy, has set out to make Thailand a quality leisure destination with the help of marine tourism in 2017. The government has forecast visiting yachts to reach 2,500 in 2017, which should generate around 7,500 million Thai Baht into the economy<sup>71</sup>.

---

<sup>71</sup> Gazetta, P. (2016). Thailand Yacht Show organizers push to make Thailand Asia's marine hub. [Phuket Gazette](#). Thailand, Phuket Gazette.

## 6.2 Research finding – Marina in Thailand compared to others

Table 6.1 – Marina Comparison

Thailand	Singapore	Hong Kong	Australia
- Phuket Boat Lagoon	- Marina Bay Sand	Royal Hong Kong	Sydney Darling
- Royal Phuket Marina	- Republic of Singapore Yacht	Yacht Club	Harbour

From research some of the predominant difference between Thailand marina developments and other established marinas in the mentioned countries above is the scale of the project. All other countries had the support of both local and national government agencies which involved the planning of the whole city as a whole. Another vital importance most has the infrastructure layout foundation already by its history of British rule. However all the above country's government saw the importance and the vast economic benefit to the city and the way it would transformed the real estate surrounding the marina. However marina sector is still considerably new industry for Thailand and with potential to grow it is vital we study from such established marina. At the same time we must be aware and of our own identity and only bring the knowledge which would not affect our local cultures.

## 6.3 Further Study

Marina as a whole is a niche market and there has been no study conducted on such topic in Thailand. For many years, marina has been growing constantly. As can be gleaned from this study, marina development involves many different sectors but is mainly driven by marine tourism with environmental concerns. Since this study only focused specifically on two mix-use marinas, there are still other marinas that can be studied in depth. Also, retrieving further statistics from the marine department can be another consideration. Further research can be conducted on other marinas in Thailand comparing the benefits between marinas in the Gulf of Thailand with marinas in the Andaman Sea. Overall, Thailand has the opportunity to establish itself as the marina hub of the region, acting as the regional hub for yacht

maintenance servicing area with the support from the government, which must implement more new legislation that are marina friendly. Another key recommendation would be developing a larger berth and service maintenance facility preparing for a growing yachts club around the world.

Due to limitation on data collection and time, this thesis is only able to provide a high-level process flow development and an overview of marina develop process. Additional in-depth research on marina sector in Thailand can be conducted with an overall distribution of their direct and indirect economic, financial, and social or even marine tourism distribution. Finally this thesis is only based on two marinas, which constitutes only a fraction of all the marinas in Thailand. Therefore, this thesis only recommends how the process of developing a marina should be in Thailand. In addition, there has never been an in-depth study conducted in similar topic like this thesis to refer to or explain on further. The general approach for this study, in particular the PESTLE analysis, proved to be very useful and could be utilized in any study associated to management. Based on the information presented in this study, it is illustrated that this initiative will benefit both the government agency and private investors with a high probability of success.

Having said all that, the marina sector in Thailand as compared to other countries such as Singapore or Australia, still needs more support from the government agencies. To cite the Australia Sydney Darling Harbour as example: the scale of the project is a mega project, and the Australian government was fully supportive because such a marina development had a big impact to the whole city. In Thailand, the marina sector so far has only been privately developed, which can only be to a certain level based upon the investments and the support from the local authorities. Nonetheless, as mentioned the government recently has been very optimistic in their desire to make Thailand the Marina Hub of the region. This will definitely benefit everyone if the government would support the private sector in expanding the marina sector, which can lead to a sustainable development.

#### 6.4 Recommendation

Additional in-depth studies on marina and yacht tourism relevant to their overall density and their economic and socio-cultural impact (directly or indirectly), on marine tourism behavioural patterns, and on their long-term environmental impact. Further study on the assessment of marina expenditure as well as focusing on local administration and national demands for such industry could extend this study further. There has also been proven that there are lacks of private marine tourism industry with high potential to grow amongst the upper middle class citizens. Since this research was only conducted on in-land marinas there are still floating marina to be studied and compared. Anyhow from the researching finding future marina developments will most likely be using pontoons to reduce the impact to the environment. Studying the local and foreign yachting communities is also a key element in extending this research. Finally another vital study which could be extended to other sector is the marina waste management.

## REFERENCES

- ABARYSNC (ABARYSNC). "Aseanarean Bluewater Alliance." Retrieved 05-03-17, from <http://www.the-aba.com>.
- Aguilar, F. J. (1967). Scanning the Business Environment. New York, Macmillan Publishing.
- Australia, M. I. A. o. (2010). "Marina Industries Association of Australia ". Retrieved 20-07-2016, from <https://www.marinas.net.au/>.
- Bank, A. D. (2007). "Public-Private Partnership Handbook."
- Business, S. "What is a marina." Retrieved 10-01-2017, from <http://www.myyachtregistration.com/3565/marina/#>
- Business, S. (2016). "What is a marina." Retrieved 04-10-2016, from <http://www.myyachtregistration.com/3565/marina>.
- C.M, H. (2011). "Trends in ocean and coastal tourism: The end of the last frontier? Ocean and Coastal Management." **44**: 601-618.
- Campaign, B. F. (2014). "Blue Flag." Retrieved 05-01-2017, from <http://www.blueflag.global>.
- Chang, Y. (2011). "Maritime Clusters: What can be learnt from the South West of England. Ocean and Coastal Management." **54**: 488-494.
- Cooperation, A.-P. E. (2012). Transport, Energy and Environmental Benefits of Transit Oriented Development by Patrick Sherry.
- Csikszentmihalyi, M. (1988). "The Future of flow."
- D.W, T. (2010). "Qualitative Interview Design: A Practical Guide for Novice Investigators." The Quantitative Report **15**(3): 754-760.

- Ditton, M. M. L. a. R. (1986). "Travel, tourism and marine affairs. Coastal Zone Management " **14**: 1-19.
- Dowden, B. O. L. A. (2016). "Thailand." Retrieved 15-10-2016, from <https://www.southeastasiapilot.com/index.htm>.
- E.Pinar Genc, N. G. (2006). "Assessment of Marinas in the Mediterranean and the position of Turkey."
- FME, T. (2013). PESTLE Analysis Strategy Skills.
- Gazetta, P. (2016). Thailand Yacht Show organizers push to make Thailand Asia's marine hub. Phuket Gazette. Thailand, Phuket Gazette.
- Greenpeace (2012). "Department of Marine and Coastal Resources."
- Groups, C. M. (1987). "Sustainable Development Success Stories ".
- GRŽETIĆ, L. T. a. Z. (2007). "Croatian Hydrographic Institute Split." 74.
- Hernández, M. G., & Martín-Cejas, R. R. (2004). "Incentives towards sustainable management of the municipal solid waste on islands. Sustainable Development." **13**: 13-24.
- I., H. S. R. C. a. K. (2013). "Transforming Cities with Transit; ." Transit and Land-Use Integration for Sustainable Urban Development.
- IBIPLUS (2016). "Market overview: South East Asia." Retrieved 30-11-2016, from <http://www.ibinews.com/country-reports/market-overview-south-east-asia-4051>.
- Indhira E., R. A., Pongsak A., Sirikarn C (2012). "Environmental Impact Assessment in Thailand."
- Investment, T. B. o. (2012). Thailand Marine Destination of Asia.

- J.Kizielewicz, T. L. (2013). "The Phenomenon of the Marina Development to Support the European Model of Economic Development." The International Journal on Marine Navigation and Safety of Sea Transportation **7**(3).
- Jobber, D. (2004). Principles and Practice of Marketing fourth edition. UK, McGraw-Hill International UK Ltd.
- Jr, D. J. V. R. (2016). "A Brief Intellectual History of the STEPE Model or Framework." Retrieved 10-02-2017, from <http://polaris.gseis.ucla.edu/jrichardson/STEPE.htm>.
- Juju, D. R. H. a. W. (2012). The Marina: Sustainable Solutions for a Profitable Business.
- Katko, T. S. (2006). "Road Safety Fatalities, Management, and Policy in Finland 1970-2003 " Public Works Management & Policy **11**: 126-138.
- L, B. (2007). "A Reflexive Account of Reusing Qualitative Data." Beyond Primary/Secondary Dualism. Sociological Research Online.
- L.A, D. (1970). "Elite and Specialized Interviewing." Northwestern University Press, Evanston, USA.
- Lukovic, T. (2012). Nautical Tourism and its Function in the Economic Development of Europe. In: Visions for Global Tourism Industry, KASIMOGLU M.
- M.L, M. (1993). "The Rise of Coastal and Marine Tourism. Ocean & Coastal Management." **21**: 183-199.
- M.Q, P. (2002). "Qualitative Evaluation and Research Methods." Sage Publications USA.
- Mara, M. I. F. n. (1999). 'A development strategy for Marine Leisure Infrastructure' E. Union.
- Mara, M. I. F. n. (2001). 'Guidelines for Planning a Marina Development' E. Union.
- Marinas, T. I. C. o. M. I. A.-W. (2016). "Future of Marinas in a Changing World."



- McKinley, D. E. (2013). "Marina 2020: A vision for future sustainability of Channel/Arc Manche Marinas." (University of Chichester).
- Miller M.L., J. A., and N.P. Hadley (2002). "Sustainable Coastal Tourism. In Proceedings of the 1999 International Symposium on Coastal and Marine Tourism: Balancing Tourism and Conservation." Washington Sea Grant Program and School of Marine Affairs, University of Washington; Oregon Sea Grant College Program: 3-20.
- Monpanthong, D. P. (2015). "Yacht Tourism Policy & Development. Ministry of Transport Thailand."
- Morrison, A. M. (2013). Marketing and Managing Tourism Destinations, Routledge London and New York.
- NOAA (1998). "Year of the Ocean – Coastal Tourism and Recreation." Discussion paper, National Oceanic and Atmospheric Administration, Washington, DC, 1997.
- Oldham, M. J. (1993). "'Residential Marinas.' The case of Hythe Marina Village ".
- P, F. (1990). "Recreational uses of coastal areas. Dordrecht." Netherlands: Kluwer Academic.
- Payeras M., M. J., M.A. Garcia, M. Alemany, A. Alocover and L. Martinez Ribes (2011). "The Yachting Charter Tourism SWOT: A Basic Analysis to Design Marketing Strategies." **6**: 111-134.
- Robinson, D. (2015). "Thailand Looks to Boost its Marine Tourism Industry." Retrieved 12-08-2016, from <http://digital.kk-superyachts.com/h/i/81054915-thailand-looks-to-boost-its-marine-tourism-industr>.
- SCHWARZENEGGER A., M. C., and R. TSUNEYOSHI (2005). Layout and Design Guidelines for Marina Berthing Facilities. Department of Boating and Waters, California, USA.

- Sciutto, C. B. G. (2002). "Marina development and environmental impact assessment requirements." the case of Lefkada Marina 'Maritime Engineering & Ports III'.
- Superyacht, T. (2011). "Marina Capacity & Berth Analysis Report." The Superyacht Intelligence Quarterly.
- Teng, M. K. (2014). "Marine Tourism: Development, Impacts and Management."
- Tools, M. (1996-2017). "PEST Analysis Identifying "Big Picture" Opportunities and Threats." Retrieved 10-02-2017, from [https://www.mindtools.com/pages/article/newTMC\\_09.htm](https://www.mindtools.com/pages/article/newTMC_09.htm).
- WEISS, R. S. (1994). Learning from Strangers: The Art and Method of Qualitative Interview Studies. N. Y. F. Press, New York: Free Press.
- WOODSONG, M. N. a. C. (2005). "Qualitative Research Methods: A Data Collector's Field Guide."
- WTO (2004). "Definition of Tourism. World Tourism Organisation." World Tourism Organisation.
- WTO (2012). Tourism Highlights. UNWTO.
- WTO (2013). World Tourism Barometer. UNWTO. **11**.

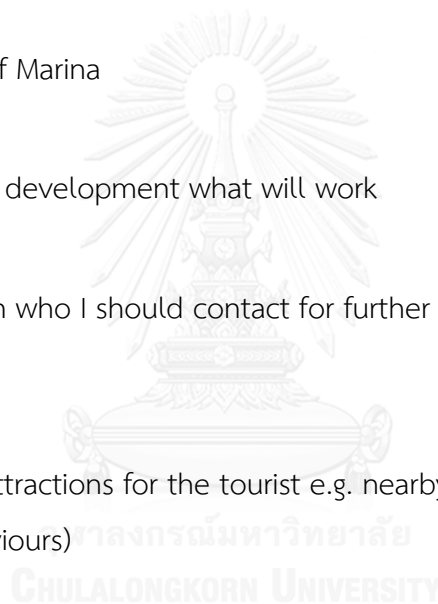


### Interview Questions

Interview Date:

Interviewee:

1. Registered country of origin  
—
2. Berth storage both dry and wet  
—
3. Commercial area and units  
—
4. Volume per year boat docking  
—
5. Key Success of Marina  
—
6. Future marina development what will work  
—
7. Any suggestion who I should contact for further information on marina development  
—
8. Surrounding attractions for the tourist e.g. nearby islands for scuba diving (Visitors behaviours)  
—
9. Sea / ocean security; safety measures  
—
10. Mix-Use area surrounding the marina (port) is vital in drawing people to the marina. (facility to support visitors)  
—
11. Total Investment & Investment Planning  
—
12. What type of property would best suit as part of marina development (hotel, single house, villas townhouses)  
—



13. Should the real estate be for sale or rent?

—

14. And pricing range of the real estate?

—

15. Best marina model around neighbouring countries or around the world for Thailand?

—

16. What is the minimum area (land size) required for developing a mix-use marina concept with a commercial area?

—

17. What type of marina best suits Thailand between in-land & floating marina?

—

18. Where other marina hub would be suitable in Thailand?

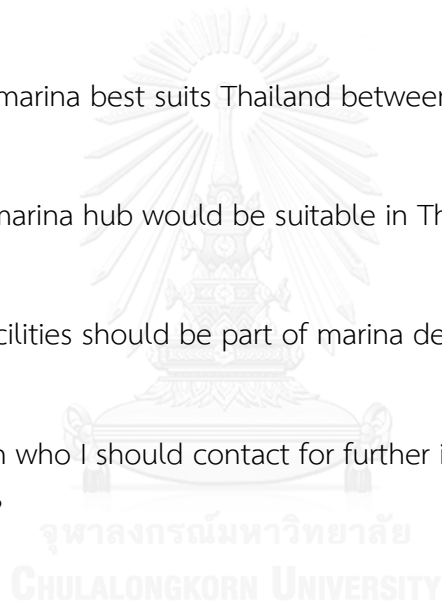
—

19. What other facilities should be part of marina development in Thailand?

—

20. Any suggestion who I should contact for further information on marina development?

—



## Interviewees

Khun Boon Yongsakul



Khun Sitt Polcharoen



Khun Wirachai Pranveerapaibool







## VITA

Vikrom Sachabhum

Email: [v\\_sachabhum@hotmail.com](mailto:v_sachabhum@hotmail.com)

Contact: 668 67893524

