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## Maritime supervision over yacht in Wenzhou

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**WORLD MARITIME UNIVERSITY**

Dalian, China

**MARITIME SUPERVISION OVER YACHT IN  
WENZHOU**

By

**WANG XIAOFEN**

**The People's Republic of China**

A dissertation submitted to the World Maritime University in partial  
Fulfillment of the requirements for the award of the degree of

**MASTER OF SCIENCE**

**In**

**(MARITIME SAFETY AND ENVIRONMENTAL MANAGEMENT)**

2021

## **Declaration**

I certify that all the material in this dissertation that are not my own work have been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

Signature:

Date:

**Supervised by: Professor Chen Haiquan**

**Dalian Maritime University**

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**Assessor:**

**Co-assessor:**

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Thirdly, I would like to express my sincere gratitude to my colleagues in Zhejiang MSA and Wenzhou MSA. Thank them for the relevant data and suggestions for my paper. And thank the employees from yacht club and yacht owners who have given a lot of opinions and suggestions in the field study and interviews.

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## **Abstract**

Title of Dissertation: Maritime Supervision over Yacht in Wenzhou

Degree: MSc

The global marine economy is booming in the 21st century. As an important part of marine economy, yacht industry brings new development momentum to the coastal economic zones in China. The prosperity of yacht industry will drive the development of tourism and economy. However, at the same time, yacht activities also pose risks to the regional navigation safety and marine environment. As the yacht industry started later in China, Wenzhou MSA is lack of experience in yacht supervision, which has restricted the sound development of yacht industry in the area. Therefore, it is significant to study the maritime supervision over yacht to promote the safe, orderly, sound and rapid development of yacht industry in Wenzhou. This paper applies the methodologies of field study, interview, literature review, summary and comparative analysis. Firstly, find out the problems lie in the maritime supervision over yacht in Wenzhou by analyzing the current situation of yacht supervision in the area. Then the causes for these problems are analyzed and listed out. Finally, by applying the public governance theory and public service theory, suggestions about how to improve the maritime supervision over yacht in Wenzhou are proposed with the enlightenment of yacht supervision experience from developed countries and other developed cities in China.

KEY WORDS: Wenzhou; Yacht; Maritime supervision; Public governance; Public service

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## **List of Abbreviations**

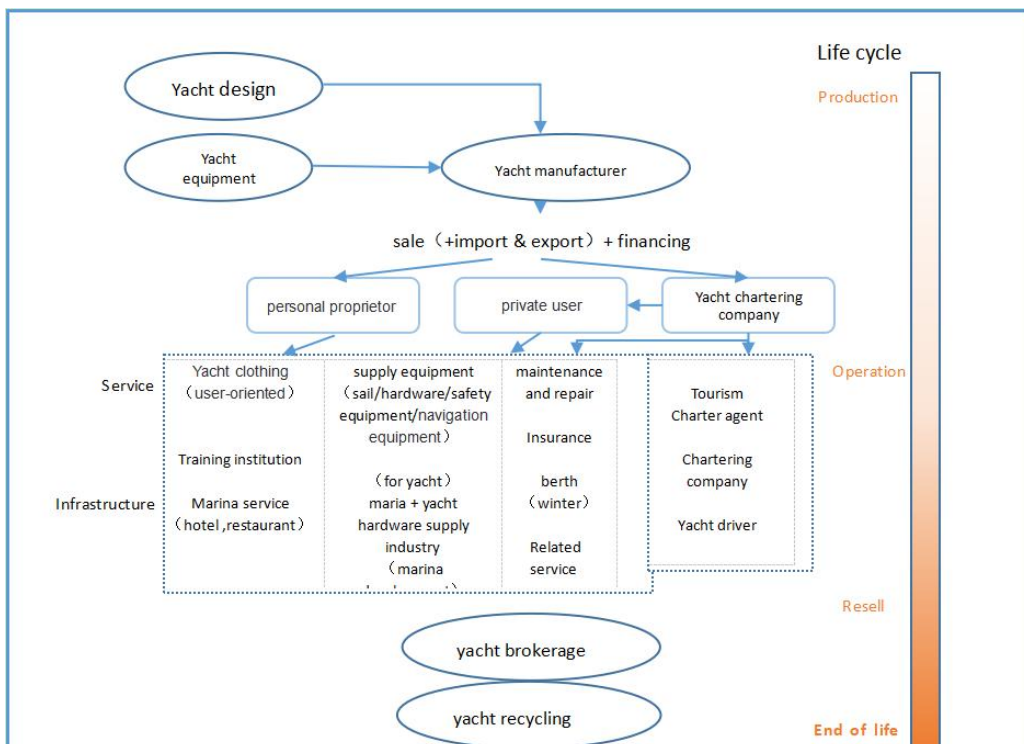
ABYC	American Boat & Yacht Council
AIS	Automatic Identification System
CCS	China Classification Society
CCTV	Closed Circuit Television
CCYIA	China Cruise & Yacht Industry Association
CE	Council of Europe
COLREG	International Regulations for Preventing Collisions at Sea
GDP	Gross Domestic Product
ISM	International Safety Management
ISO	International Standardization Organization
MSA	Maritime Safety Administration
NMMA	National Marine Manufacturers Association
SOLAS	International Convention for Safety of Life at Sea
UK	United Kingdom
US	United States
USCG	United States Coast Guard
VTS	Vessel Traffic Service

# Chapter 1 Introduction

## 1.1 Research background and significance

### 1.1.1 Research background

In the beginning of the twenty-first century, post-industrial societies entered a leisure era (Neva, 2017). Leisure boating is an important economic activity which is increasing in popularity worldwide (Venturini et al., 2016). Yacht is a kind of pleasure vessel which is high value-added and needs high consumption. It aims to fulfill people’s need for leisure activities on water. The development of yacht industry will drive the developments of the upstream and downstream economic chains such as yacht manufacturing, marine tourism, marinas and yacht clubs. The related industries during the whole life cycle of a yacht are illustrated in Figure 1.



**Figure 1. Composition of related industries of yacht. From “Present situation, opportunity and challenge of the development of yacht industry in China”, by Bao Jing, 2017.**

According to the statistics of the Boat International (famous UK yacht magazine), the total value of the yacht industry in the world's major yacht-building and consuming countries totaled about 120 billion US dollars in 2017 (Xie & Yang, 2019). The proportion of different segments of related industries are illustrated in Table 1.

<b>Table 1: The production value of related yacht industry in 2017</b>		
<b>Related yacht industry</b>	<b>Value (billion \$)</b>	<b>Proportion</b>
<b>Total</b>	<b>120</b>	<b>100%</b>
<b>Yacht-building</b>	<b>20.04</b>	<b>16.7%</b>
<b>Supporting equipment (including internal facilities decoration)</b>	<b>28.32</b>	<b>23.6%</b>
<b>Design, research and development</b>	<b>14.52</b>	<b>12.1%</b>
<b>Yacht sale and rental</b>	<b>13.2</b>	<b>11.0%</b>
<b>Other service sectors (including crew training, marina charge and yacht maintenance)</b>	<b>44.04</b>	<b>36.7%</b>

**Note: Adapted from “Problems and measures of yacht industry development in China”, by Xie yu and Yang yang, 2019, p.12.**

Since the implementation of the reform and opening-up policy, China has achieved enormous economic development over the past 40 years. Its GDP has increased from 0.5 trillion RMB to 101.6 trillion RMB between 1980 and 2020. The number has increased by over 200 times. There is a popular belief among the international

community. When the per capita GDP is over 3000 US dollars, the yacht industry would emerge. When the per capita GDP is over 6000 US dollars, the yacht industry would develop rapidly. According to the statistics of International Federation of Boat Show, about 171 people own a yacht in the developed countries (Xue, 2020). In 2020, the GDP of Wenzhou was 687 billion RMB and the city had a population of about 8.43 million people. Its per capita GDP has reached over 12000 US dollars, so the yacht industry has a great promising future in Wenzhou.

China has put forward the idea of becoming a maritime country which seeks more economic return from the ocean. And Wenzhou is a coastal city with a coastline of 355 km, 150 inland rivers and 436 islands, boasting superior hydrologic environment. With its economic prosperity and geographical advantages, the yacht industry is booming with more and more local residents participating in yacht activities in Wenzhou. Now there are about 760 yachts in Wenzhou, while the number was about 300 in 2018. And the city is also a port city with busy traffic of merchant ships on water, so the increasing number of yachts does not only bring economic benefit to the city and recreational benefit to the local residents, but also bring challenges to the local maritime authority about how to supervise the yachts and maintain traffic safety on water.

### **1.1.2 Research significance**

Wenzhou is one of the top 20 yacht cities in China, which is released by the CCYIA. The yacht industry has been developing relatively well in the district. The development of the yacht industry can give a momentum to the related industry and local economy. However, it also brings challenges to the maritime safety administration, marine pollution prevention and marine tourism security. The yacht

industry started later in china, which has a weak foundation than that in the developed countries. It lacks experience in industrial structure, yacht design and yacht supervision. In the aspect of maritime supervision, there are problems of incomplete legal systems, inadequate supervision experience and insufficient public service. Most of the yacht supervision follows the laws and regulations of merchant ships including the yacht survey, registration, certification of yacht drivers and management of yacht club. It will hinder the development of yacht industry under the supervision mode of merchant ships.

The research purpose of this paper is to propose appropriate suggestions for the maritime supervision over yachts in Wenzhou by analyzing the current maritime safety supervision situation in the district. By applying the public governance theory and public service theory and learning experience from other countries and cities where there are mature yacht supervision, the paper endeavors to provide innovative solutions for improvements of maritime yacht supervision which comply with the current development and prospect of yacht industry in Wenzhou. On one hand, it can ensure ship navigation safety and environment protection in the area. On another hand, it can promote the sound and rapid development of local yacht industry. The paper also has practical value of enhancing recreational life of the local residents and promoting local economic development.

## **1.2 Literature review**

### **1.2.1 Overseas research**

In developed countries and areas, the yacht industry is comparatively more mature. There are more sophisticated and all-round public management and maritime supervision system about yacht safety. Related foreign studies are more in-depth and



profound. Most of the literature are related to the impact of yacht activities on economy, yacht consumption, yacht marketing, yacht designing , yacht safety and impact of yacht activities on the environment.

As a kind of private pleasure vessel, different countries have different definitions of yachts in the aspects of size, propulsion system and navigation area. In order to ensure the sound development of the yacht industry, developed countries like France, Italy and UK have established complete chain of public services for yacht activities, which has made the yacht activity to be affordable for the majority of the population. Participating in yacht activity has become a daily leisure lifestyle.

#### **1.2.1.1 Development of yacht industry**

American researcher John R. Stoll analyzed the development and prospect of yacht industry on the basis of research on the situation of yacht industry in Texas. An application of an input-output model of state level indicated that the direct plus indirect and induced economic impacts of the Texas' recreational boating industry exceeded \$1.7 billion in 1983 (John et al., 1988). The economic return is huge even today. Lipton and Miller (1995) focused on the yacht development in Maryland and found that every yacht can averagely generate 7633 dollars of economic benefit every year. Wen-Yen Chien (2014) carried out a research on the sharing technology of yacht manufacturing among shipyards, suppliers and consumers, which is a big leap in the yacht industry. Hirschman (2015) put forward a new mode of yacht development by systematically studying the contribution of yacht industry to the economy.

Alfred (1990) mainly focused on the development of yacht clubs and advocated that

yacht clubs should welcome more common people. There can be multiple levels of yacht consumption market. It's a right trend for the development of yacht industry. The yacht activity should also be popular among the ordinary people.

### **1.2.1.2 Supervision over the yacht industry in other countries**

In 1971, United States has enacted the Yacht Safety Act. And the American Boat Council has formulated complete industrial standards about yacht and enacted the Yacht Law and Regulation. Its National Marine Manufacturers Association implements unified industrial management about yacht manufacturing. It has standardized systems of yacht sales, registration, navigation, driving license, finance and insurance. Related departments have formulated targeted policies to settle problems according to analysis based on the yacht accident report database system. It's a good act of enacting a joint yacht code.

McKnight (1999) came up with the conclusion that the main cause of yacht accidents was human factor according to the probability statistics of different categories of yacht accidents. Accidents prevention can be achieved by setting differentiated safety targets and taking effective safety measures via classified statistics. In my opinion, although human factor is the main cause, we cannot attribute all the faults to the yacht drivers. The yacht designers, manufacturers and supervisors of yacht activity also have responsibilities over some yacht accidents. Therefore, human factors can be relevant to all the people who participate in the yacht industry.

Manuel et al.(1998) conducted a research on marina design and formulated design standards for leisure marinas. The research pointed out that the location, design and construction of a marina should be comprehensively assessed with real estate development, nearby scenic spots and infrastructures for yacht service.

The Yacht Harbor Association in UK has conducted sophisticated researches and compiled a guideline about the design standards, technology standards and operation risks of marina.

Reinier Steensma (2005) who is the manager of Dutch Yacht and Marina Development Group analyzed yacht manufacturers, yacht berth construction and management, yacht marketing, rules of yacht activities, resource utilization and environment protection and proposed that there should be continuous improvement of China's yacht industry in the report of the Development of China's Yacht Industry. He suggested that China's yacht industry should learn experience of countries and areas where the yacht industry is developed, establishing legal system, improving infrastructures and promoting yacht activities.

In Japan, the Small Boat Registration Act came into force in 2002. In 2005, Italy's new act stipulated that yachts should apply for registration and sailing qualification to improve supervision over the yacht industry. Mostly, the philosophy of yacht supervision is less direct government interference and more industrial self-regulation in those developed countries and areas. As the yacht activities are so frequent and massive in these areas, there are not enough public resources to supervise those activities. Industrial self-regulation is more appropriate in yacht activities.

Jihwan Yoon (1998) conducted a research about the impacts of yacht activities on the marine environment and pollution on the ecological environment of animals and plants, putting forward effective handling and regulation measures. Robert (2009) put forward the planning policy about navigation zone for yacht activities.

## **1.2.2 Domestic research**

The yacht industry in China started relatively later. At the early stage, most researches focused on learning experiences from foreign yacht industry, especially from the Europe and United States. The studies are mainly about present situation and prospect of yacht industry. In recent years, related departments and regional governments have launched a series of preferential policies to boost the development of yacht industry. Some parts of the coastal areas have had remarkable development such as the Yangtze River Delta, Pearl River Delta and Hainan Island. Related departments also formulated public policies to take maritime safety measures that provide public services for yacht activities. Now there are more and more researches about public safety management of yachts in areas where yacht industry had started earlier. These researches have reference values to the public safety management policy about yachts and the maritime supervision over yachts in Wenzhou.

### **1.2.2.1 Development of yacht industry in China**

Zhang (2011) mainly analyzed the problems existing in the supervision of yacht industry and put forward what kind of work should the government do to solve these problems and to help the industry develop orderly. He mentioned regulations and services the government neglected for the development of yacht industry. And finally he suggested the corresponding measures for them.

In her Research on Development of Yacht Tourism, Xing Heling (2013) pointed out that yacht tourism would exert positive effects on the yacht industry, tourism and social economic development. Define the yacht tourism, yacht industry and the related concept. Combining with the domestic and foreign development experience,

summarize four typical modes of yacht tourism development: yacht club mode, yacht resort mode, yacht estate mode, and the public yacht dock mode. Based on different conditions for yacht tourism of coastal and inland cases, try to sum up the applicable development modes in common.

In his on Constructing the Tourism Development Model by Yachting Leisure in Chaohu City, Luo Qisheng (2019) said with the advent of the leisure era and the development of the yacht industry, the yacht activities have become increasingly popular in the coastal areas of China and begun extending to the coastal areas along the Yangtze River. Therefore, Chaohu city should actively seize the opportunity for developing the yacht industry. The paper analyzed the advantages and disadvantages of developing yacht activities in Chaohu city and puts forward the solutions. One of the key measures is training more yacht professionals, which I agree with the author. Most of the coastal cities are lacking in professionals of the yacht industry.

Bai Shuai (2020) proposed that the development momentum of China's yacht industry is very strong as the number of yachts may exceed one hundred thousand. More and more domestic coastal cities would accelerate the development of yacht tourism by building a number of yacht industrial park and related supporting infrastructure. The development prospect of China's yacht industry is bright.

### **1.2.2.2 Supervision over the yacht industry in China**

Shi Xiaoping (2004) studied the navigable environment adaptive to yacht development by Analytic Hierarchy Process on the basis of the statistical analysis of maritime incidents and analyzed the potential risks in marine environment in Shanghai Port. It clarified 9 factors relevant to yacht safety by Analytic Hierarchy

Process and classified the different results caused by the factors. It also established a risk analysis model for the four navigable parts in the Huangpu River. He also put forward the safety measures of selecting locations for yacht base construction and development. His paper presented the safety measures for promoting and protecting yacht industry in Shanghai Port and concluded that it is capable to control and reduce the risks relevant to yacht safety by adopting appropriate policies.

Wang Chengyi and Lei Liang (2008) conducted a survey about the maritime administration of yachts. This paper points out the problems existing in maritime safety administration and puts forward the corresponding solutions. It also clarifies the lack of relevant implementation rules and measures before the official implementation of the Regulation on the Safety Management of Yachts.

Wu Zhixin (2011) carried out a study on the maritime safety administration of yacht in Xiamen port. He analyzed the navigation environment for yachts in Xiamen Port. The yacht accidents from 2001-2010 in Xiamen port were analyzed with the fault tree analysis. The results shows that human factors are the main causes such as improper emergency response operations, unsafe navigation speed, risky overtaking and fatigue. On the basis of expert interview and analytic hierarchy process, he analyzed eight management factors directly influencing the yacht safety and sort them out according to their importance sequence. He suggested that the MSA should attach importance on three aspects: yacht driver management, vessel traffic service and yacht clubs.

Li Guoping (2012) pointed out that yachts were different from merchant ships. Except the International Regulations for Preventing Collisions at Sea, most of the international conventions do not apply to yachts. Yacht is a kind of non-convention

ship, so there are few international regulations for yacht supervision all over the world. Different countries have different registration and survey requirements. Registration is not mandatory in some countries. Survey is not mandatory in some countries. There are even countries that do not require the registration and survey at the same time. But I think this mode is too loose to keep navigation safety since there are many overlaps between yacht and merchant vessel waterways. There are huge risks if there is not enough supervision over yachts.

Wang Yixin (2013) who is the executive deputy director of Yacht Planning and Design Institute of Zhejiang Ocean University pointed out that the current yacht supervision mode is an important factor that restricts the development of domestic yacht industry. Yacht supervision is used to follow the mode for merchant ship which lays adverse effect to the development of yacht industry. It severely hinders the development of the leisure consumption industry which is the core of yacht industry.

Shan Chunhong and Zhang Xiao (2015) built a matter-element extension model to evaluate the safety level of China's yacht industry from 2006 to 2012. The result shows that the safety level of China's yacht industry from 2006 to 2007 was very unsafe, while the 2007 level was higher than that in 2007. The safety level in 2008 was comparatively unsafe. However, the 2009 level deteriorated to be very unsafe. In 2010, the safety level turned to be comparatively unsafe. Until 2011, the critical safety level was achieved. The result in 2012 was also critical safety level. Generally, the safety level of the yacht industry is comparatively low, volatile and unstable.

Chen Qiuyuan (2016) carried out a study on the maritime safety administration of in Fuzhou and pointed out that the Fuzhou MSA mainly had yacht supervision and service problems. The concrete problems were inaccurate yacht definition, inaccurate

yacht standard, inadequate daily yacht supervision and poor yacht infrastructure service. The main reasons are that the supervision of MSA does not adapt to the development of yacht industry, lack of service awareness or poor public policies. The above problems are very common in the yacht supervision all over China.

Cheng Long (2020) carried out a study on the maritime safety regulation of yacht in Shenzhen from the perspective of holistic governance. He pointed out that the problems were mainly division of department function and poor cooperation between social organizations and government departments. Utilizing holistic governance theory may solve the problem in the yachts' public governance which could push the sound development of the yacht industry.

### **1.3 Methodology**

Literature analysis: the related literature were read and assessed. The literature can be government documents, government circulars, international conventions, journal articles, dissertations, books and information from websites.

Field study and interviews of related personnel: Firstly, I went to Wenzhou MSA to collect data about yacht survey, registration, yacht driver's training and certification, navigation safety of yacht, antipollution measures of yachts and search and rescue of yacht accidents etc. Secondly, I visited some staff and members (yacht owners) of local yacht club, asking them about their appraisals and opinions about the yacht supervision in Wenzhou. Finally, find out the problems of maritime supervision over yacht in Wenzhou.

Summary and comparative analysis: Firstly, learn from the advanced experience of



leading countries and regions in yacht supervision. Secondly, propose suggestions on the maritime supervision over yachts in Wenzhou by summarizing the objective laws that public yacht supervision should follow and complying with the current situations in Wenzhou.

The main research object is the maritime supervision over yacht in Wenzhou. It aims to put forward appropriate measures about how to improve the local maritime supervision over yachts by learning experiences from other districts and applying the public governance theory and public service theory. With appropriate policies, both the supervision level and self-regulation of related social organizations will enhance the safety level of yacht activities and development of local yacht industry. The Wenzhou MSA should also apply the concept of service-oriented government in their daily work and promote the local economic development.

## **Chapter 2 Related concepts and theories**

### **2.1 Related concepts**

#### **2.1.1 Yacht**

The Oxford English Dictionary defines yacht as “a large sailing boat, often also with an engine and a place to sleep on board, used for pleasure trips and racing” (Oxford dictionary, 2014).

Yacht was originated from the royal hunting boat of UK in the middle of 17th century. Since the 1950s, the yacht activities have spread extensively with the rapid development of world economy, yacht technology and people’s lifestyle. Yacht tourism has gradually become the new growth area of economic development in the world’s coastal areas and the new focus of national consumption (Maria et al, 2017).

There are various types of modern yachts, having a full choice of space for yacht fans. Modern types of yachts range from inflatable boat to luxury yacht. Broadly speaking, the following vessels belong to the category of yachts: fishing boats, motor boats, speed boats, ski boats and sail boats, which enables a large number of people to enjoy the charm of different yacht cultures.

(a) Yachts can be classified as sport yachts, leisure yachts and commercial yachts by function.

(b) Yachts can be classified as unpowered yachts, sail boat and powered yachts by power type.

(c) Yachts can be classified as small yachts (less than 36 feet) , medium-sized yachts (between 36-60 feet) and large luxury yachts (over 60 feet) by length (Li et al, 2012).

Since yacht has so many types and functions, it has different definitions even in developed countries which have mature yacht industry.

In Europe, the legal definitions of yacht are similar to each other in many countries. Yacht is defined as moving appliance or equipment for non-profit-making sports, fishing or recreation and entertainment on water. The key word is non-profit-making.

In United States, yacht is legally defined as vessels built for recreation or chartered to others for recreational purpose.

In Australia, yacht is a kind of vessel with engines, providing leisure and entertainment with accommodation for commercial or private use.

In Asia, different countries have different yacht definitions, too. For example, Maritime and Port Authority of Singapore defines all the vessels for private recreational purpose as yachts except those commercial vessels for carrying tourists and passengers for fare. In Hong Kong, yacht is defined as private vessels or inflatable boats equipped with propulsion system purely for recreation.

The above definitions all emphasize the recreational nature of yachts. Yacht is also called as “pleasure craft”, “recreational craft”, “recreational vessel” and “pleasure vessel” , which illustrates that recreation is the general character of yacht.

Although yacht is a type of vessel, it has essential difference from merchant ships. In terms of purpose, yacht is non-profit-making for private leisure activity. It barely participates in public transportation, concerning with few public interest. But merchant ships are profit-making for public transportation of cargoes and passengers, concerning with more public security and interest.

In 2009, the Regulation on the Safety Management of Yachts came into force in China. It defines yacht as vessels equipped with propulsion system only for sightseeing and entertainment by the yacht owner himself. It also stipulates that yacht should be regulated according to the supervision mode of passenger ships if the number of guests is equal to or over 12 people. This regulation emphasizes that the yacht should only be used by the yacht owner, which excludes the chartering function of yachts. However, there is a great demand for yacht chartering as the economic level of China is still comparatively lower than that in developed countries. There is a supervision loophole of these yachts for chartering purposes.

There are different definitions of yacht in different countries and regions. No matter how the yacht is defined, it is undoubtedly a type of vessel. It means that yacht should be supervised like other vessels according to relevant regulations under the supervision of maritime authority.

### **2.1.2 Maritime supervision over yacht**

Supervision is the noun form of “supervise”. Supervise means “to be in charge of somebody or something and make sure that everything is done correctly, safely, etc.” in the Oxford English Dictionary (Oxford dictionary, 2014).

Maritime supervision is a kind of public administration over ships, aiming to fulfill the responsibility of the International Maritime Organization (IMO). IMO is “the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships” (IMO, 2021). Maritime supervision is a series of activities of legislation, organizing, implementation and enforcement to maintain the navigation safety and clean ocean. It requires the ships and seafarers to operate according to shipping regulations. It prevents the accidents from happening by controlling navigation environment, technical conditions of ships, cargo loading and seafarers’ operations, ensuring safe ship operation and avoiding marine pollution. The legal foundations for maritime supervision are the domestic laws and regulations pertaining to ship standards and seafarers’ qualifications.

As to the maritime supervision over yacht, on one hand, it consists of supervision of yacht, yacht drivers, yacht waterways, pollution prevention and other safety management. The management of yacht consists of yacht survey and yacht registration; Management of yacht drivers consists of the training, testing, assessment, certification and on-site supervision of yacht drivers; On-site supervision of yacht consists of yacht reporting and yacht safety inspection; Yacht’s pollution prevention consists of oil pollution prevention and garbage pollution prevention; Management of navigation safety consists of management of navigable water, vessel traffic service and releasing navigational warnings; There are also search and rescue of yacht accidents, maritime casualty investigation and management of yacht clubs etc. The maritime authority carried out most of these supervision activities.

On the other hand, the supervision authority or body should not be restricted to government departments due to the diversity of yacht stakeholders.

At present, there is no clear definition of maritime supervision over yacht. There are only similar definitions of ship safety management or maritime safety supervision. Ship safety management focuses more on ship's seaworthiness and safe operation by predicting the weather and managing the fairway, ship, cargo and crew. But the maritime supervision over yacht should focus more on the supervision function of the regulatory bodies such as the maritime authority, yacht industry association and yacht club.

The definition of maritime supervision over yacht should be the macro and micro supervision over yacht activities carried out by government, yacht industry associations, yacht clubs, yacht owners, yacht drivers and other related stakeholders according to related yacht laws and regulations.

Although yacht is not regulated by most of the international conventions, it is still under the regime of International Regulations for Preventing Collisions at Sea (COLREGS) and Chapter V of International Convention for Safety of Life at Sea (SOLAS) except under a few circumstances. Even it is not a kind of merchant ship, it may share waterways and other public resources with merchant ships. It should also comply with the regulations about navigation safety and collision prevention.

## **2.2 Related theories**

### **2.2.1 Public governance theory**

The public governance theory was proposed in the field of administrative supervision in the 1970s (Han & Zhai, 2016). The traditional supervision mode is implementing management according to the administrative order of governments. The public

governance theory advocates adopting the management mode of the enterprise and promoting management efficiency by introducing competition mechanism in the public governance, which would enhance the quality of public service. The theory is based on the modern economics and management theory of private enterprise. It should not only focus on power centralization and government responsibilities to improve administrative performance. It should be more market-oriented by readjusting the relationships among state, society and market.

The public governance theory focus on the multiple and combined cooperation of related entities including government, enterprises, social organizations and individuals. It is a process of coordination other than control. State governance is cooperation between government and citizens who share equal rights. The government should not be the only entity which possesses power. The other social organizations should also have different levels of power recognized by the public.

There are more and more non-governmental organizations and private entities which share responsibility for managing the society through more and more channels, aiming at achieving good cooperation with the government. In order to ensure good social governance, there should be government supervision, self-regulation of other entities and individuals and their cooperation, achieving better public governance and maximizing public interests.

### **2.2.2 Public service theory**

The public service theory is the core concept of public administration and government reform in the 21st century (Peng, 2014). The theory highlights cooperation, service nature of government and civil rights. The core function of

government is providing service for the citizens to satisfy their common interests as a guide, servant and participant.

Nowadays the society is the interaction and integration of different interest groups and organizations. The development of society is determined by the compromise of different opinions and interests, which is full of uncertainty. The government can no longer command everything. Government does not only play the role of service provider, but also mediator, intermediary and judge when we advocate civic values. The function of the government is to make different stakeholders reach consensus through communication.

The public service theory believes that the fundamental goal of the government is to pursue public interests. The so-called public interest refers to the interest mainly provided by the government, for the public, related to the public, or for public use. According to the public governance theory, public interest is a simple superposition of individual interest. While the public service theory believes that public interest is not the case.

Public interest is an independent interest separated from the personal interest. Firstly, the government should help citizens form a collective consciousness of sharing values and public interests. Secondly, the government should make sure that the public interest comes first with impartial and fair solutions. The ultimate goal of public governance should not only be efficiency or profit. Seeking public interest is the legitimate basis of the government's existence.

The public service theory believes that policies can be implemented most efficiently if the policies are made through public participation and meeting public needs. Public



participation has three implications by its nature. Firstly, the power of government belongs to citizens. Secondly, citizens have the right and the will to participate in administrative affairs. Thirdly, government is the tool for self-governance.

Democratic government should be open, accessible and responsive. The government should take actions to stimulate civic pride and civic responsibility which will evolve into strong desire for civic engagement in public affairs by citizens' participation, cooperation and communication. Finally, the citizens and administrative officials will jointly share the responsibility and work for the public interest together, enhancing mutual understanding. Then the citizens will regard themselves as the master of the country instead of customer, putting the democratic management into practice.

## **Chapter 3 The development of yacht industry and maritime supervision over yacht in Wenzhou**

### **3.1 The development of yacht industry in Wenzhou**

#### **3.1.1 Natural environment for yacht activity**

The development of the yacht industry is closely related to water conditions and local climate. It is mainly related to the area of water available for yacht activities, water quality and climatic characteristics.

In the aspect of water conditions, Wenzhou is one of the main coastal port cities in China, which has superior geographical environment with a long coastline. The city has a coastline of 355 km, 436 islands over 500 square meters and 150 inland rivers with 11,000 square kilometers of coastal area. Its long coastline and numerous islands are favorable for tourism and yacht activities. And in recent years, the Wenzhou municipal government has also taken a series of measures to improve the water quality of its inland rivers. Some of these inland rivers also provide favorable places for yacht activities.

In the aspect of local climate, Wenzhou has a subtropical monsoon climate. It has moderate temperature, four distinct seasons, adequate sunshine and abundant rainfall. Its annual average temperature is between 17.3 and 19.4 °C.

The cities' rich water resources and suitable climate provide excellent natural conditions for the development of yacht industry. The city should optimize its spatial

layout of the yacht tourism industry, expand its land and water facilities for yacht service, improve yacht policies and promote the construction of yacht service system by making full use of its coastal geographical advantage and the tourist source of the vast hinterland.

### **3.1.2 Infrastructure for yacht activity**

According to the Layout Planning for Yacht Base of Wenzhou, the city has clearly planned to construct 41 yacht bases for yacht anchoring including 4 large yacht bases, 11 medium yacht bases and 26 small yacht bases. The 26 small yacht bases will mainly be located at coastal area, inland rivers and scenic spots near the cities' biggest reservoir. These yacht bases will have different functions depending on their own locations and features.

At present, the first marina located in inland river has been put into service in the downtown of the city, showed in Figure 2. This marina has totally 18 berths including 10 medium berths for yachts over 15 meters and 8 small berths for yachts less than 12 meters. Now the citizens in the downtown area can enjoy the fun of yacht activities and the scenery of the waterfront recreational zone.



**Figure 2. First marina located in Wenzhou’s inland river. From “The first marina in the downtown of Wenzhou has been put into use”, by Lucheng Releasing, 2021.**

And a tourist complex will be built with 1.4 billion RMB in the southern coastal area of Wenzhou. The complex will construct the first international yacht club in the south of Zhejiang province (the province Wenzhou is located). The design drawing is shown in Figure 3.



**Figure 3. Design drawing of the tourist complex. From “The total investment is 1.4 billion RMB! Wenzhou will build the first large international yacht club in southern Zhejiang ”, by Wenzhou Releasing, 2018.**

The complex is an international yacht complex project with marina, yacht resort hotel, yacht exposition center, yacht club, yacht training base, water sports training base and yacht maintenance base. The complex will have 66 acres of yacht reception service base, 30 acres of yacht mooring area and 12 acres of yacht maintenance base as shown in Figure 4. It will provide one-stop services for yacht activities and a high-end platform for leisure tourism and business communication. The complex is of great significance to improve the service level and overall image of Wenzhou’s yacht tourism.



**Figure 4. Design drawing of the tourist complex. From “The total investment is 1.4 billion yuan! Wenzhou will build the first large international yacht club in southern Zhejiang”, by Wenzhou Releasing, 2018.**

But the current yacht infrastructure still cannot meet the demands for yacht activities in the area. The yacht infrastructure investment and construction still have a long way to go.

### **3.1.3 Influence of yacht on Wenzhou’s economy and culture**

With the steady growth of per capital GDP in Wenzhou, local residents’ travel mode has gradually shifted to experience-based tourism. Yacht activities have become public activities as the local yacht industry becomes more mature, which was considered as “rich man’s game” previously. As a new trend in the marine economy, yacht industry is expected to become another golden industry like the car industry which needs intensive labor, technology, knowledge and capital.

At present, every 171 people have one yacht in developed countries. As shown in Table 2, nearly every 8 people have one yacht in Norway and New Zealand. Even in landlocked Switzerland, every 69 people have one yacht (Xue, 2020). According to the current population of Wenzhou, nearly 12000 people have one yacht which is far below the level of developed countries. There is a huge potential for the development of yacht industry.

**Table 2**

**Per capita yacht proportion in developed countries**

State	Number of yacht (10 thousand)	Per capita yacht proportion
Canada	550	1/5.5
Norway	65	1/7
Sweden	120	1/7.5
New Zealand	30	1/8
Netherlands	69	1/10
France	400	1/11
Denmark	37	1/14
America	1,680	1/14

**Note:** Adapted from “It is time for the development of Zhoushan’s yacht industry”, by Xue Xiaobo, 2020 p.44.

It has caused extensive social attention that yacht economy can produce huge social benefits and economic benefits. Yacht economy is a kind of rising industrial economy with high-added value. Yacht tourism has multiple economic benefits for the coastal city such as increasing tourism consumption, expanding tourism

investment, reducing the seasonality of tourism and creating jobs (Mikulic et al, 2015). The development of yacht economy has great impetus to the local economy in Wenzhou.

From the point of building a famous cultural city, cultivating yacht culture is a good start. Yacht activity is a kind of elegant leisure lifestyle which makes people brave, adventurous and close to nature. In the world's coastal cities or cities with numerous rivers and lakes, yachts activities inject vitality into the city. Yacht activity becomes an indispensable and beautiful scenery in these famous cities. For example, in Glado and Garo (Italian cities), it is found that yacht tourism has increased the supply of leisure and entertainment services, improved the quality of public services, promoting the maintenance and restoration of historic sites and buildings, improving the cities' image and promoting the development of the city (Gon et al, 2016). Developing yacht industry has great significance to enrich the cities' culture.

### **3.2 Maritime supervision over yacht in Wenzhou**

With the rise of leisure activities such as yacht tourism and yacht sports, the yacht number has been growing rapidly. There are nearly 760 yachts in Wenzhou, but over 85% of them have no yacht certificates. These unlicensed yachts pose great threat to the traffic safety on water. There are yacht accidents now and then. From July to December of 2020, there were 8 yacht accidents with 38 people in distress and one death in the district. Attention is urgently needed in yacht supervision.



### **3.2.1 Yacht survey**

Yacht survey has followed the development of yacht industry. It has experienced steady improvement.

Before 2008, yacht survey were carried out according to the survey standards of glass reinforced fibre vessel. There was no specific regulation about yacht survey.

In 2008, the Code for Construction of Yachts and Interim Provisions on Statutory Survey of Yachts was enacted by the CCS and China MSA. There were clear stipulations for the concrete construction standards and survey standards for yacht.

In 2009, the revised Interim Provisions on Statutory Survey of Yachts 2013 came into force on September 1st of 2013. The new provision stipulates survey standards for different lengths of yachts. There are standards about yacht design, structural stability, fire fighting, life-saving appliances, navigational equipment and environment protection. Statutory survey of yacht consists of initial survey, renewal survey and additional survey. There are special provisions different from merchant ship survey. For example, establish a recognition and evaluation system for yacht manufacturers. There are design criteria complying with the standards of ISO and ABYC.

The classification society issues different yacht survey certificates under the boundary of 24 meters. Different provisions have been made for the survey intervals of yachts for different yachts. The yachts managed by the yacht club have a longer period for renewal survey.

After years of exploration and practice, yacht survey has made great progress. The level of service and management of yacht survey has also been greatly improved.

### **3.2.2 Yacht registration**

Yachts sailing or moored in waters under the jurisdiction of China should hold certification of registry according to the Regulation on the Safety Management of Yachts. Only ships with certification of registry have the right to sail in China. Yachts have the same treatment as merchant ships. China has no specific laws and regulations about yacht ownership and nationality registration. Yacht's registration should comply with the registration procedures of merchant ships, implemented in accordance with the Regulation of the People's Republic of China on Ship Registration 1995. Yachts are subject to strict registration. If there is foreign investment involving in the registered capital, the Chinese investment should not be less than 50% (MSA, 1995). Major investors must be Chinese citizens or legal persons who have a domicile or main place of business within the territory of China.

But in 2010, China MSA enacted the Implementation Advice on Yacht Safety Management. The Advice does not limit the proportion of Chinese investment which is different from merchant ships. A valid yacht survey certificate is required for nationality registration. In consideration of the reality that some regions are close to Hong Kong, Macao and Taiwan, the Advice lifts restrictions on yacht owners' domiciles in Hainan, Shenzhen, Zhuhai and Xiamen (MSA, 2010).

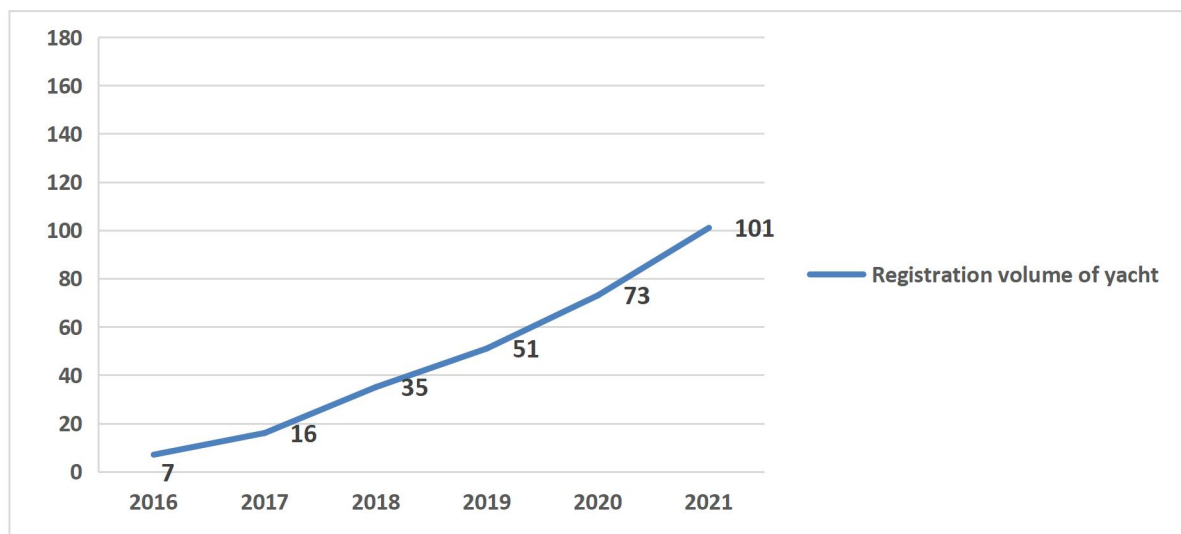
In recent years, with the continuous improvement of people's living standard, yacht consumption has gradually risen every year. Most of the yachts are small in size. As shown in Table 3 and Figure 5, the number of total registration volume of yacht has risen from 7 to 101 from 2016 to 2021 in Wenzhou.

**Table 3**

**Total registration volume of yacht from 2016 to 2021 in Wenzhou**

Year	2016	2017	2018	2019	2020	2021
Registration volume of yacht	7	16	35	51	73	101

Source: author



**Figure 5. Total registration volume of yacht from 2016 to 2021 in Wenzhou.**

Source: author

### **3.2.3 Yacht driver’s training and certification**

In 2006, the Notice on Strengthening Management of Yachts released by Ministry of Transport made a formal request on the training and certification for yacht drivers at the first time. But the notice did not set uniform standards about examination, assessment and certification of yacht drivers. In order to strengthen the supervision of yacht drivers, some developed Chinese cities with high yacht popularity have enacted their own regulations on training, examination and certification of yacht drivers. But the yacht driver’s certificate issued by each region is limited to drive

yachts in the waters within the local jurisdiction. And the scope of navigation on the sea is limited, which must be within 20 nautical miles of the shore. It also cannot be approved for yacht driving nationwide.

**In 2009, a new Regulation on the Safety Management of Yachts was enacted. The Regulation clearly stipulated the relevant standards for training institutions and yacht driver's training, examination and certification. Subsequently, the Implementation Advice on Yacht Safety Management was issued. The Advice approved the Certificate of Competency for yacht drivers with foreign yacht driver's license. If they only have a short-term stay which is not over 7 days in China, the yacht driver does not need to renew the certificate to the Chinese version (MSA, 2009a). They can drive the yachts in the jurisdictional waters of China. The Advice also clarifies the requirements for the mutual recognition and replacement of yacht driver's certificates between China and foreign countries, which greatly facilitates the foreign yacht drivers to enjoy yacht activities in China. At the same time, the yacht**

## **driver certificate issued by China can also be recognized by other countries.**

In 2011, in order to unify yacht driver’s training, examination and certification, China MSA enacted the Notice for training, examination and certification of yacht drivers which approved the universal application nationwide. The Notice has detailed and clear stipulations on the training programs, examination requirements and certification procedure for yacht drivers. At present, the yacht driver’s certificates are classified as illustrated in Table 4.

**Table 4**

**Classification of yacht driver’s certificates**

Category	Class	Type of propulsion power
A. Sea	1. Yacht of any length	E. Mechanical propulsion F. Mechanical and sail propulsion hybrid power
	2. Yacht less than 20 meters	
B. Inland river	3. Any area in inland river	
	2. Limited to enclosed water	

**Source: Notice for training, examination and certification of yacht drivers**

Training and examination for yacht drivers have been carried out in Wenzhou since 2015. The total number of people who have passed the examination and successfully obtained the certificates is 217. But the local training institution only has the qualification to carry out training for the A2E type which means the driver can only drive yacht less than 20 meters with mechanical propulsion system on the sea.

### **3.2.4 Management of yacht club**

Yacht club management is an important part of yacht supervision. It is also a favorable intermediary for maritime authorities to strengthen safety supervision of yachts (Hee et al, 1999) . Yacht club has a similar role like the shipping company in the aspect of ship safety management. As most yachts are under the management of the yacht clubs, the impact of yacht club is larger than shipping company because there are more contacts between yacht clubs and yacht drivers (Wang, 2001).

At present, the Chinese maritime authorities manage yacht clubs according to the filing management stipulated in the Regulation on the Safety Management of Yachts. Article 27 of the Regulation stipulates that yacht clubs should be registered according to law and it should be filed at the local maritime authority (MSA, 2009b). The regulation has detailed requirements for the yacht club. Firstly, the yacht club should have the ability for safety and pollution prevention management equipped with professional personnel. Secondly, the yacht club should provide protection facilities for yacht to prevent and control pollution, area for safe berth and so on. Thirdly, the yacht club must make an emergency response plan and have the ability to deal with emergencies if there is a major accident. At the same time, the maritime authorities are required to carry out inspection for the safety and anti-pollution ability of the yacht clubs. If the yacht club has met the requirement, the maritime authority should put it on record and make it public.

But Wenzhou only has one legitimate yacht club which has been put in record at Wenzhou MSA. The other yacht clubs have problems such as unqualified mooring locations and unqualified management system. Since it is not mandatory for yachts to join a yacht club in China, many yacht owners are not willing to join a yacht club or

join the club for only limited service to save money. Service fee for a regular member is too high since most of the yachts in Wenzhou are small yachts which have a limited budget for operation every year.

There is a great potential of setting up clubs whose service fee and level are suitable to small yachts in Wenzhou.

### **3.2.5 Navigation safety of yacht**

The sailing and anchoring of yachts belongs to water traffic activities which shall be supervised in accordance with the laws, regulations and rules concerning water traffic safety and pollution prevention of ships.

Yacht navigation areas are basically located in ports, fairways, anchorages and other water areas where vessel traffic flow is dense. Compared to professional merchant seafarers, yacht drivers are not familiar with the fairway and lack safety awareness. There are no specified fairways or navigation areas for yachts in Wenzhou. Yachts always appear on navigable waters, which has a great impact on the navigation order of merchant ships and navigation safety in the district.

Ship reporting system is one of the important means for maritime authority to supervise navigation safety of yacht. It mainly focuses on the seaworthiness of yacht and yacht driver's certificate. According to the Code for Ship Safety Supervision, yachts must report to the maritime authority when entering and leaving the port online 24 hours in advance. The report shall consist of information about guests on board, voyage route and planned time of arrival and departure. Now yachts can report in and out of port via a cellphone app which is much more convenient than

before. Wenzhou MSA also applies VTS to monitor yacht navigation performance and carries out on-site inspections of yachts.

The Regulation on the Safety Management of Yachts also clarifies that the first voyage of yacht must be filed with maritime authority, including detailed navigation area, navigation plan, yacht name and information of relevant personnel (MSA, 2009b). Once there is a change in the plan, the new plan should be filed with the maritime authority before the voyage.

With the development of local yacht industry, the number of yachts and anchoring areas for yachts are increasing. Wenzhou MSA will encounter greater challenges to ensure the navigation safety of yachts.

### **3.2.6 Antipollution measures of yacht**

It is said that the biggest source of pollution from ships on the water is from yachts. The operational pollution caused by yachts mainly includes domestic sewage, domestic garbage, refueling operation and discharge of oily water. And yacht activities will lead to the invasion of alien species to the local water (Venturini et al, 2016). Yacht tourism may also bring great harm to the coastal marine ecosystem with decline of fish and coral , increase of algae and destruction of seagrass bed (Sari et al, 2016).

In the public sector, to prevent and control yacht pollution in inland rivers and on the ocean, maritime authorities conduct supervision on yacht pollution mainly by the following measures. Firstly, yachts should comply with the relevant regulations on oil supply and receiving operations by implementing safety measures and ensuring



good condition of oil supply and reception facilities. Secondly, yacht is not allowed to discharge oil substances, sewage, garbage, animal wastes and toxic substances into the water. Thirdly, yacht marinas and moorings shall set up management systems for safety and pollution prevention, equipped with pollution prevention equipment and approved by the maritime authority.

In the private sector, the Regulation on the Safety Management of Yachts clearly stipulates that the yacht club should be able to prevent pollution and provide anti-pollution facilities for the marina (MSA, 2009b). But the yacht club in Wenzhou does not meet the above requirements.

### **3.2.7 Search and rescue of yacht accident**

To be prepared for maritime search and rescue and pollution prevention under emergencies, a maritime search and rescue center has been set up in Wenzhou. The Maritime Search and Rescue Center locates its search and rescue center office at Wenzhou MSA (Wenzhou MSA, 2021). The office is responsible for the organization and coordination of search and rescue if there is maritime emergency. Its daily operation is undertaken by Wenzhou MSA.

Once there is a yacht emergency, the public can report to the center through the national unified maritime distress number (12395) to get timely rescue and emergency response and minimize casualties and losses. The search and rescue center can also coordinate the navy, coast guard, customs, fishery administration, shipping companies and other social forces in maritime rescue.

In 2021, Wenzhou MSA has formulated the "Wenzhou Maritime Emergency Plan" according to a series of international conventions and domestic laws. The plan has 11 emergency plans such as "Emergency Response Plan for Missing Ship", standardizing the local management of maritime emergencies. The Plan is helpful to improve the efficiency and level of maritime search and rescue in Wenzhou, protecting the public and their property better.

### **3.3 Existing problems in the maritime supervision over yacht in Wenzhou**

The yacht industry is a new industry which started relatively later in China. The public governance of yacht safety in China is still in the phase of exploration as its citizens gradually accept the consumption idea and culture of yachts. From the current situation in the survey, registration, navigation safety, search and rescue of yachts etc., maritime supervision over yachts mainly adopts the supervision mode of merchant ships. The maritime yacht supervision mainly has the following problems in Wenzhou.

#### **3.3.1 Inaccurate definition of yacht**

(a) The legal definition of yacht is too narrow. According to the Regulation on the Safety Management of Yachts, yachts are non-commercial ships excluding yachts for chartering purposes. However, in practice, yacht clubs frequently charter their own yachts or yacht managed by them to their members or nonmembers. At present, yacht chartering has become a major business of yacht clubs.

(b) The requirement on legal user of yacht is too strict. The current definition of

"yacht" is only for yacht owner's use, restricting the yacht owner from lending it to others for free or for profit. This is not consistent with reality. The affluent class is the majorities who buy yachts according to the local economic level. It is a common act for yacht owners to lend yachts to friends and relatives. In addition, yachts owned by legal persons are always used for business reception and provided to employees for free.

(c) The functions of yacht are not abundant enough. According to the current definition, yacht is only for sightseeing and entertainment. The sports function is excluded. Actually, the sports function spreads widely in developed countries. What's more, there is a huge consumer market for sports vessels in China. Not defining it as a yacht would create a supervision loophole.

### **3.3.2 Old-fashioned and unreasonable supervision mode over yacht**

At present, the maritime supervision mode of yachts adopts an undifferentiated supervision mode from that of merchant ships, making the supervision complicated and tedious. It severely restricts the development of yacht industry because this mode cannot provide convenient and high-quality public services for yacht activities. Many potential yacht owners have lost enthusiasm for buying yachts.

The cause of these problems is mainly the old-fashioned and unreasonable supervision mode. The maritime authority habitually applies the idea of strict supervision of merchant ships over yachts. It does not take the particularity of yacht into consideration, hindering the development and popularization of yacht activities.

Therefore, it is necessary for the maritime authority to actively update the concept of

yacht supervision, establishing a public supervision system in line with yacht positioning. With the gradual improvement of people's living standards, yacht has become an important recreational facility of the public to be closer to ocean. The maritime supervision of yachts can not only stay at the level of water traffic safety supervision, but also promote popularization of yacht consumption, making it possible for the public to buy yachts and enjoy yacht activities. The maritime authority should effectively support and serve economic and social development.

Wenzhou MSA adopts the supervision mode of merchant ships over yachts. The complexity of the yacht approval and certification process set many obstacles for yacht activities. Many yacht owners say what they worry the most is the complexity of the yacht approval and certification process. It takes a very long time for a yacht owner to get the yacht survey and registration certificates.

In the aspect of registration, the limitation of the yacht registration only in domicile place brings great inconvenience to yacht owners, restricting the free flow and consumption of yachts. As most of the yachts are lack of purchasing contracts and shipbuilding drawings, these yachts cannot get the registry certificate, which is very adverse to the effective supervision of yachts.

In the aspect of survey, the Interim Provisions on Statutory Survey of Yachts 2013 clarifies the requirements for yacht design, structural stability, fire protection and life-saving appliances, navigation equipment and environment protection. It restricts the efficiency of yacht survey because of the complex and time-consuming survey procedure of imported yachts and high requirements on safety technology of yachts.

In the aspect of carrying capacity of yachts, the number cannot exceed 12 if the yacht's length is less than 20 meters (MSA, 2009b). Otherwise, it can only apply for survey as a passenger ship. This kind of survey regulation relevant to the number of passengers is not suitable to the characteristic of yacht, which is adverse to the development of yacht industry.

### **3.3.3 Inadequate delegation and ambiguous divisions of yacht supervision**

In the process of maritime supervision over yachts, Wenzhou MSA failed to effectively make the full use of delegation of supervision responsibility. It should reach cooperation with third parties in technical area, making full use of public resource and ensuring sound development.

The most important third party in maritime yacht supervision is the yacht club. But in Wenzhou, the yacht club does not actually take responsibility for the safety and pollution prevention of the yacht according to the yacht regulations. They only sign a contract with the yacht owner. There is no comprehensive and specific responsibility for yacht club which lacks corresponding full-time supervision personnel. In addition, Wenzhou MSA also failed to establish a good communication mechanism with yacht clubs and yacht owners including policy guide, information service and daily inspection.

What's more, there are as many as 20 government departments involved in the supervision of the yacht industry, including maritime authority, port administrative, tourism department, public security department, sports department and so on. And there is no clear competent department or comprehensive management department to coordinate yacht supervision. The administrative boundaries of each department are

ambiguous and supervision modes are different. For example, there is even disagreement among government departments over the supervision of yachts in different areas. Wenzhou MSA supposes that yachts navigating in the scenic spots should be supervised by the tourism department, while the tourism department believes that yacht should be supervised by maritime authority as it is a type of ship. Wenzhou MSA and the sports department also have disagreements on the supervision of sports yacht.

There is also no interconnection of information between relevant departments with overlaps and loopholes in yacht supervision. Policies of different departments are difficult to coordinate with each other, severely hindering the development of yacht tourism and its mass consumption market.

### **3.3.4 Incomplete supervision system for yacht**

The maritime supervision system for yachts is incomplete, having loopholes in different aspects.

(a) Inadequate supervision of yacht driver's competency: to those who have obtained the yacht driver's certificate, there is not enough supervision of their knowledge renewal, daily yacht driving and illegal acts. There is only examination and assessment before acquiring the yacht driver's certificate. There is no regular training, emergency drill, knowledge renewal and safety education for the yacht drivers after the certification. Subsequent renewal of the yacht driver's certificate only has requirements on their physical conditions. There is no requirement on driving record and knowledge renewal about yacht operation.

(b) Inadequate supervision of yacht's navigation route: at present, Wenzhou MSA implements VTS dynamic report system for large bulk carriers, construction vessels and fuel supply vessels. But most of the yachts are not fitted with AIS. VTS system cannot track the AIS signal or radar echo, so the real-time dynamic tracking of the yacht cannot be guaranteed. And only parts of the yachts strictly implement the reporting system when entering and leaving the port. Many yachts usually omit this procedure, which makes it difficult for maritime authority to know the yacht's route during navigation.

(c) Inadequate pollution prevention measures for yachts: because most of the yachts in Wenzhou are small yachts, many yachts are not fitted with sewage treatment equipment, fixed garbage reception facilities and oil-water separator. Whether the yacht is sailing or refueling, it is difficult to avoid oil pollution. It is inevitable to cause severe pollution to the environment as most of the yacht garbage are directly discharged in to the water. Pollution caused by yacht activities is directly related to the lack of early guidance and strict supervision of maritime authorities. Maritime authorities have failed to make mandatory requirements for anti-pollution equipment during yacht survey. There is also lack of supervision over the dumping of waste by yacht driver after the yacht is put into use.

(d) Inadequate information service for yacht navigation: as most yachts are only fitted with simple navigation facilities such as the magnetic compass and VHF telephone, Wenzhou MSA does not have effective channel to provide real-time hydrometeorological information to yacht drivers. It also does not publicize significant navigation safety knowledge to yacht owners.

(e) Inadequate emergency handling capability for yacht accidents: due to the problems in club supervision and dynamic tracking of yacht's trail, it is difficult to get shore support and rescue quickly and effectively when yacht is in danger or has accident. The yacht drivers have to save themselves or rescued by the nearby yachts.

### **3.3.5 Inadequate public service for yacht**

There is a gap between public services and public consumption demand of yachts. Local government has attached great importance to the development of maritime leisure tourism and has realized that yachts will be the future of water leisure economy. It has made a package of policies to support the development of yacht industry, aiming at building international first-class tourist port. However, there are still obvious shortcomings in public services on water. For example, the construction of yacht bases is slow. The planning of the area for yacht activity lags behind. Safety guidance and navigation aids for yacht navigation areas are not sufficient. Public berths for yachts are scarce. The infrastructures for yacht activities are insufficient in general.

The management thinking and mechanism of administrative departments lag behind. There is a conventional thinking of control over emerging industries like the yacht industry.

Yacht industry association and yacht club do not give full play to the self-regulation of the industry. The government did not fully mobilize their participation and enthusiasm in yacht safety supervision and public service. The public safety management of yachts has not yet formed a management pattern dominated by the



government and jointly participated by yacht owners, yacht associations and yacht clubs.

### **3.4 Cause analysis**

With the improvement of people's living standard, yacht industry has achieved certain development in China but not as much as in developed countries. The maritime supervision over yacht in Wenzhou is an epitome of China's present maritime supervision over yacht. The causes for the present situation of maritime yacht supervision are various. The concrete analysis are as follows.

#### **3.4.1 No unified and updated yacht laws and regulations**

The maritime supervision over ships are mainly based on the Maritime Traffic Safety Law, Marine Environmental Protection Law and regulations derived from the two laws. Yacht is also under the supervision of the two laws as a kind of ship.

At present, there are nearly twenty regulations specifically relevant with yacht supervision. The issuing authorities include Standing Committee of the National People's Congress, Ministry of Transport, Maritime Safety Administration, Ministry of Environment Protection, National Development and Reform Commission, Ministry of Commerce and so on. Some local governments have enacted local regulations such as Hainan, Guangdong, Zhejiang, Shandong, Shanghai and other provinces.

The "Regulation on the Safety Management of Yachts" is a department regulation

specifically formulated for the yacht supervision. It is the main basis of the current yacht safety supervision, stipulating the definition, survey, registration, yacht driver, yacht navigation and so on. However, as the highest level of yacht industry regulation, the clauses of “Regulation on the Safety Management of Yachts” are too simple, lack of high-level laws and detailed rules. As a result, there is insufficient legal foundation for the safety supervision of yachts. The Regulation has not adapted to the rapid development of yacht industry and restricted its sound development. The government should introduce a comprehensive regulation of all supervision activities over yachts as soon as possible.

The Interim Regulations on Statutory Survey of Yachts is a normative document for yacht survey. It clarifies the specific technical survey requirements for yachts of 24 meters and below. There is no subdivision of the standards of large, medium or small yachts. Only yachts with mechanical power plants are covered, excluding yachts with non-mechanical propulsion. This part of the pleasure vessels are facing a legal loophole.

Supervision standards for yacht clubs and related personnel are unclear, making it difficult to ensure effective law enforcement. Even if a violation of the law is found, the penalty is relatively lighter and cannot cause the alert of the club or the related personnel. This also hinders the sound development of the yacht industry to a certain extent.

On one hand, there is the lack of relevant laws. On another hand, there is huge social needs for yacht laws. It makes it difficult for the maritime authority to keep a balance between yachts supervision and developing the yacht industry.

### **3.4.2 Supervision mode of traditional merchant ships over yacht**

The maritime supervision over yachts also adopts the supervision mode of merchant ships which does not make corresponding adjustments according to the characteristics of the yacht. The unsuitable maritime supervision mode makes the yacht survey difficult and yacht registration complicated.

(a) China adopts the compulsory registration system of ships. The shipowner applies to the maritime authority for the Ownership Certificate and Certificate of Nationality. And in accordance with the principle of territorial jurisdiction, the shipowner shall choose the nearest port of registry on the basis of his domicile or principal place of business (MSA, 1995). However, the consumption characteristic of yacht differs from merchant ship. The current consumption group of yacht is mainly the elite class of society. The domicile or place of business of the yacht owner may not have water resources available for yacht activities. They have specific areas where they want to engage in recreational yacht activities which are not their domicile or place of business. The current registration system can not meet the various consumption needs of yacht buyers. There are legal obstacles for the actual acquisition of yacht navigation right.

(b) Extremely strict survey standards are applied in the Interim Regulations on Statutory Survey of Yachts. Imported yacht shall have shipbuilding drawings and meet China's certification standards. Although Implementation Advice on Yacht Safety Management has canceled the requirement of providing shipbuilding drawings for imported yachts and recognizes the safety certificate of CE and ABYC, applying the same criteria to different types and sizes of yachts is not advantageous for the development of yacht industry. As a result, the number of registered yachts

does not match the real number of yachts on water, making the maritime supervision even more difficult.

### **3.4.3 Inadequate application of the public governance theory**

During its yacht supervision, Wenzhou MSA failed to effectively make use of division and delegation of supervision responsibility. According to the relevant views of public governance theory, the government should be a good coordinator and promoter of public resources. It should encourage all the stakeholders to participate in the supervision activity.

To ensure the sound development of yacht industry, it should not only rely on the supervision department, but also the cooperation with third parties. In fact, both the government and social organizations have rich social resources in the process of public governance. The government should make full use of these social organizations, realizing the healthy running of the market and self-discipline of these social organizations and other relevant stakeholders.

In order to implement a loose supervision mode for yachts, it is important that the yacht owners and yacht drivers have consciousness of complying with the law. But Wenzhou MSA has made insufficient effort in publicizing related yacht laws and regulations and carrying out training about yacht navigation knowledge. It fails to fully implement guidance responsibilities for safe yacht activities. There is no guarantee of self-discipline in the yacht industry, making it difficult to demonstrate the advantages of public governance.

#### **3.4.4 Unawareness of the importance of public service for yacht**

Wenzhou MSA has not realized the importance of public service in its maritime supervision over yacht. It has not transformed the role of manager into the role of service provider in the yacht supervision. The inadequate transformation of government functions makes it urgent to strengthen its service consciousness for its stakeholders.

The public service theory believes that the function of the government and its relationship with the society should be redefined. When the government is demand-oriented, it can change the relationship between government and society under the traditional public administration mode. When applying the public service theory to yacht supervision, the supervision mode of yachts should take the characteristics of yachts into consideration. Yachts do not participate in public transportation. Therefore, a public service system for yacht supervision should be established for the yacht industry. It is necessary to redefine the functions of government, yacht industry and yacht owners.

The legislators are lack of service awareness for yacht activities. For example, the Regulation on the Safety Management of Yachts excludes the commercial use of yacht for the sake of supervision convenience when defining the yacht. A large number of yachts cannot participate in yacht chartering. It does not only hinder the development of yacht economy, but also hinder the general public to participate in yacht activities. Another example is the supervision over yacht clubs. The maritime authority lays emphasis on the inspection of daily maintenance management, equipment setting and personnel arrangement, but neglects the meteorological information service and guidance for the skills of club employees.

In fact, most of the yacht owners and yacht drivers are not professional crew, so they need higher level of public service as they are not so familiar with navigation safety and pollution prevention. The maritime authority should manage the relationship between supervision and services effectively and establish supervision mode meeting the needs of yacht industry.

## **Chapter 4 Foreign and domestic experience in maritime supervision over yacht**

There is a relatively short history of yacht consumption in China. The modes and methods of maritime supervision over yachts in most areas are also relatively backward.

After long-term exploration and experience accumulation, developed countries and Chinese regions with widespread yacht activities have established relatively complete maritime yacht supervision systems. Wenzhou can learn lessons from the advanced experience of these countries and regions. But at the same time, it should

establish supervision mode adapted to local development. Due to the different phases of economic development, Wenzhou MSA should not just blindly copy the supervision modes of the Western countries and other Chinese regions, but it should refine the supervision strategy in line with Wenzhou's economic development and local demand. This paper mainly studies the maritime supervision mode of yachts in several advanced countries such as Italy, UK, Australia, New Zealand, US, Singapore, and also some regions in China, such as Hainan and Hong Kong.

#### **4.1 Maritime supervision over yachts in developed countries**

The yacht consumption is closely related to the countries' economic strength, wealth of its people, consumption concept, geographical environment and yacht policies. Within the scope of the global yacht market, yacht consumption in North America and Europe occupies the large share of yacht market. Among them, the United States is the country which has the world's largest yacht consumption market. Italy is the country with the most advanced yacht manufacturing industry. These countries have a lot of advanced supervision experience of yachts.

##### **4.1.1 Yacht survey based on product certification**

(a) The United States has the most developed yacht industry in the world. The development of its yacht industry has benefited from the country's well-established regulations and system for yachts. The American Boat Commission has established comprehensive yacht survey standards related to yacht design, on-board equipment, electrical equipment and technical advice etc. In addition, its yacht survey is

relatively loose. The yacht can only comply with the industry standards based on federal regulations.

(b) Italy is the world's largest yacht design and manufacturing country. The yachts are surveyed according to the yacht length. The length of small yacht is less than 10 meters. The length of medium-sized yacht is between 10 to 24 meters. The length of large yacht is more than 24 meters (Li et al , 2012). Yachts are also divided into private yachts and commercial yachts.

Different sizes and different types of yachts have different survey standards. Small yachts are not subject to compulsory survey. Medium-sized private yachts shall be surveyed in accordance with the product certification. Large private yachts are subject to legal survey in accordance with the survey regulations. Large commercial yachts should be surveyed according to the standards of classification society.

(c) In New Zealand, yacht is required to have a yacht safety certificate similar to a product certificate. In Australia, private yachts are not subject to mandatory survey.

From the above analysis of yacht survey regulations, it shows that yachts are treated differently in survey according to their types and sizes in developed countries. Especially for small private yachts, the survey is relatively loose by recognizing product certification. For large commercial yachts, the survey is relatively strict with higher standards.

#### **4.1.2 Loose yacht registration**

(a) In New Zealand, there is no mandatory registration system. The yacht only needs



a product safety certificate.

(b) In Italy, only medium-sized or larger yachts need to get a certificate of registry. There is no limitation on the nationality of yacht owners.

It can be seen from the experience of the above-mentioned countries, yachts are not subject to most international conventions since the vast majority of them sail in domestic waters. Therefore, the above countries have adopted a relatively loose yacht registration system when formulating domestic yacht registration laws and regulations.

#### **4.1.3 Strict yacht driver's qualification supervision**

Compared with the loose registration system, the supervision over yacht drivers is quite strict in countries with developed yacht industries.

(a) In Italy, chartered large yachts must hire a qualified captain and meet the safe manning requirements.

(b) In Singapore, there is a strict management mode for the qualifications of yacht drivers. The yacht driver must have a yacht driver's license.

(c) In Australia, there are different requirements for yacht driver qualification in different navigation areas. Different provinces can formulate different regulations for the supervision of yacht drivers.

(d) In the United Kingdom, there is different supervision of yacht drivers according to the size, passenger number and gross tonnage of yachts. The yacht with more than 12 passengers should be manned according to standard of passenger ship. When the yacht length is over 24 meters with less than 12 passengers, there should be crew of the deck and engine department (Li et al, 2012). Yacht less than 24 meters is not required to comply with the manning regulations.

Thus, most of the countries implement strict supervision of yacht drivers and make detailed classification of yacht drivers for different size and type of yachts. For the safety of large yachts, many countries require minimum safe manning.

#### **4.1.4 Flexible on-site supervision**

Yacht activity has a long history in countries which have mature yacht consumption. Yacht owners have had the idea of self-regulation and risk-bearing by themselves. Government departments have few direct interventions on yacht activities.

In Italy, the on-site inspection of yachts is to randomly check the authenticity of yacht's certificates and navigation record. The maritime authority only carry out yacht inspections under certain circumstances. For example, when the yacht need to go to other countries, when the yacht is subjected to changes that have a significant impact on its structure and seaworthiness or when passengers are more than a certain number, safety inspections are carried out on yacht facilities (Li et al, 2012).

#### **4.1.5 Clear law and regulation about yacht supervision**

The US Congress enacted the Federal Yacht Safety Act in 1971. The federal government legally requires that yachts must be constructed and used in compliance with minimum USCG requirements and industry standards. The states of the United States have their own requirements for the safety navigation and environment protection. But most yacht activities are subject to the Federal Yacht Safety Act.

In the aspect of yacht survey, the US government has required all yacht manufacturers to be a member of the NMMA to be regulated with unified standards.

Daily operation of yachts depend on yacht clubs and industrial self-regulation.

In the aspect of search and rescue of yacht accidents, the Coast Guard regularly conducts a comprehensive analysis of specific incident data in its Incident Reporting Database. Then they will actively adjust supervision measures to ensure their effectiveness.

## **4.2 Maritime supervision over yacht in other Chinese cities**

### **4.2.1 Maritime supervision over yacht in Hainan**

Hainan Provincial People's Government promulgated “Trial Measures for Yacht Management in Hainan Province” in 2010. It clarifies that yacht owner whose domicile is not Hainan can apply for registration of yachts in Hainan. Yacht drivers should hold a yacht driver’s certificate. Foreign residents who hold certificates issued by foreign maritime authorities or their recognized organizations have yacht-driving

qualification for a short period of not more than 7 days in Hainan (Hainan Provincial Government, 2010).

The Trial Measures also stipulates requirements for the establishment of yacht club about marina facilities, management team, pollutant recovery and treatment and emergency response capacity. It clarifies the responsibilities and obligations that the yacht club should undertake. Yacht supervision mainly depends on industry self-discipline.

In 2011, Hainan MSA has formulated Guideline for Yacht Club Filing, further improving management of yacht clubs. The Guideline is operable in the aspects of application range, application procedure, time limit of approval and follow-up inspections.

In December of 2019, Hainan Provincial Government has issued the Trial Administrative Measures of Hainan Province on Yacht chartering. It clarifies the rights and obligations of the yacht chartering company and yacht charterer. It also clarifies the supervisory responsibility of maritime authority, promoting the sound and orderly development of Hainan yacht chartering industry.

#### **4.2.2 Maritime supervision over yacht in Hong Kong**

In Hong Kong, yachts over 150 gross tonnage or carrying more than 60 passengers should have mandatory surveys (Li et al, 2012). The survey is mainly about safety equipment.

Small yachts need to get a license just like cars and the yacht survey certificate is not

a necessity. The yacht registration is voluntary. And registration and license application can be carried out separately. There are no restrictions on the applicants for registration.

Yacht drivers can complete their training at government-approved training institutions. They can apply examination in the marine department or training institutions. Only the marine department can issue a certificate to the yacht driver who has passed the examination.

#### **4.3 Enlightenment from foreign and domestic experience in maritime supervision over yacht**

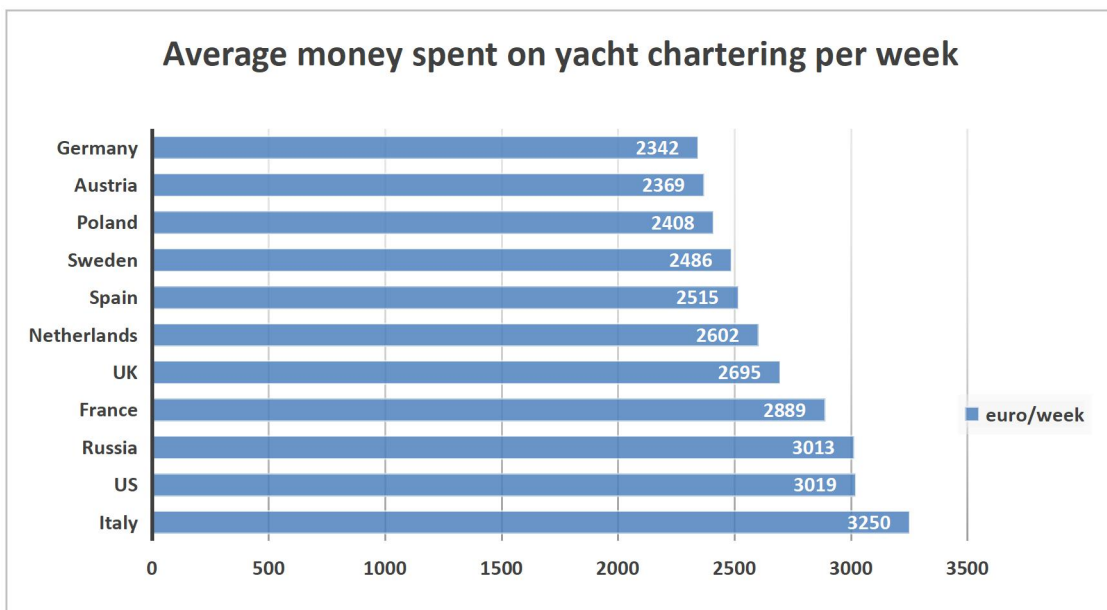
Based on the advanced yacht supervision experience of the above countries and regions, we can see that these countries implement differentiated public management for yachts in the aspects of yacht definition, yacht legislation, yacht survey, yacht registration, yacht driver and on-site supervision, considering the characteristics of yachts different from merchant ships.

By contrast, although China has also made some explorations in maritime yacht supervision, it has not abandoned the traditional governance mode, which has hindered the development of yacht activities in China. Wenzhou MSA need to learn lessons from the advanced experience of these countries and regions. Establish a yacht supervision mode which does not only ensure yacht safety and environment protection, but also effectively promote development of yacht industry and popularization of yacht activities.

### 4.3.1 Scientific definition of yacht in law

The basic function of a yacht is for sightseeing, recreation and sports according to the yacht definitions of the above countries and regions. It is the main characteristics of yachts that distinguish them from merchant ships. To give full play to the function of yacht, countries like US, Canada, Italy and New Zealand allow the yacht chartering. Figure 6 shows the average money spent on yacht chartering per week in different countries. We can see that yacht chartering is profit-making and the profit is considerable.

In China yachts are only for personal use. Yachts are forbidden from chartering in most areas. However, yacht chartering business is showing vigorous vitality in China. Almost all yacht enterprises have participated in yacht chartering in the gray areas of law. They charter the yachts to others under the excuse of testing drive for their members. The current regulations seriously hinder the rapid development of yacht chartering business in China. Even though it is illegal, there is a clear supply and demand market for yacht chartering.



**Figure 6. Average money spent on yacht chartering per week in different countries. From “Present situation, opportunity and challenge of the development of yacht industry in China”, by Bao Jing, 2017.**

#### **4.3.2 Loose yacht survey and registration**

The survey and registration of yacht are different according to the size and type of it. Small yachts are not subject to mandatory survey or registration in some countries. Some yachts are even exempted from both survey and registration. Only a product certificate is enough for yacht activities.

In addition, there is no territory restriction on the registration of yachts. Yacht owners can choose to register in the area which is most convenient for their yacht activities.

Loose survey and registration system facilitates the purchase of yachts. It is also favorable to the popularity and development of yacht activities, which is one of the symbols of service-oriented government. There is no special registration regulation for yachts in China. Its registration is carried out in accordance with the Shipping Registration Ordinance like merchant ships. Before registration, the yacht owner must get the yacht survey certificate in advance. The yacht owners need to apply for the registration in their legal domicile which is very inconvenient for them. It is also unfavorable to the popularization and development of yacht activities.

#### **4.3.3 Strict requirements on yacht drivers**

In the three elements of yacht safety management, human is the most unstable element of all among “human, ship and environment”. To ensure yacht safety,

developed countries and regions take active measures to strengthen the management of yacht drivers in order to reduce the threat caused by human factors to yacht safety and lower yacht accident probability. Through the thorough training, examination and certification system, it is ensured that yacht drivers have the ability to drive yachts safely.

In addition, the Italian Government also requires minimum safe manning for large commercial chartered yachts. Macao issues master certificates to yacht drivers who drive yachts over 24 meters.

Although China also implements the training and certification system for yacht drivers, yacht drivers actually do not belong to crew as the crew regulations do not apply to the supervision of yacht drivers. What's more, yachts are not required to hold a minimum safety manning certificate in China.

#### **4.3.4 Flexible on-site supervision based on self-regulation of yacht club**

There are few on-site supervisions over yacht in countries and regions with developed yacht industries.

For example, yacht safety depends on industry self-regulation with yachts joining yacht clubs and industry associations. The government encourages autonomous management of yachts safety, encouraging the yacht owners to bear risks by themselves. Maritime authorities rarely implement on-site supervision over yachts.

At present, relevant Chinese regulations such as the Rules for the Supervision and Administration of Ship Safety do not take the particularity of yachts into consideration, leading to a large deviation in the way of carrying out on-site



supervision over yachts. In some areas, the maritime authority implements loose on-site supervision over yachts with no on-site supervisions at all. While in Wenzhou, the on-site supervision of yachts completely copies of the strict supervision mode of merchant ships, carrying out regular yacht safety inspections.

## **Chapter 5 Suggestions on how to improve maritime supervision over yacht in Wenzhou**

Through the research and analysis of the above chapters, there should be loose development environment and practical public safety management measures suitable to yacht attributes in order to encourage people to buy yachts and participate in yacht activities.

Based on the present situation and existing problems of maritime supervision over yacht in Wenzhou, this paper tries to put forward suggestions on how to improve the yacht supervision mode and optimize yacht supervision system focusing on enhancing yacht safety and public services from the view of public governance theory and public service theory.

## **5.1 Update the supervision concept of yacht**

In the newest communique of the Chinese government, the word “governance” has appeared many times in the phrases as national governance, public governance and social governance. It’s not just a shift in vocabulary from supervision to governance. It is based on the fundamental change and progress of governing concept of the Chinese government.

In fact, specific maritime supervision over yachts should also adapt to the new requirements of the current social governance. Maritime authority should change traditional supervision concepts and realize the renewal of supervision concept. They should change the supervision concept from the strict and all-round style to the loose and service-oriented style.

### **5.1.1 Establish new supervision concept of yacht different from merchant ship**

As a type of pleasure vessel, yacht is different from merchant ship with small gross tonnage, flexible manoeuvrability, short voyage and near-shore navigation. It is mainly used for water sightseeing, leisure fishing and business reception. Except the COLREG and Chapter V of SOLAS, most international conventions are not applied to yachts.

In order to improve the maritime supervision over yacht, the first step is to accurately understand the yacht's characteristics. Then we can establish yacht’s legal and supervision system different from that of merchant ships, which can ensure moderately loose yacht policy and yacht safety at the same time. Simplify the approval and certification procedures which can satisfy the free development and

individual needs of yacht activities.

The new supervision concept of yacht should firstly establish a scientific and suitable supervision system for the yacht industry and focus on the important parts of yacht supervision. More active focus on the origin of the problem, rather than introducing regulations targeted towards consequences of the activity, once the problem arises (Neva, 2017). The new concept should facilitate convenient and efficient yacht consumption, yacht activities and yacht supervision.

### **5.1.2 Enact a unified yacht code**

According to the characteristics of yacht supervision in Wenzhou, formulate a comprehensive and unified yacht code which is different from the supervision laws of merchant ships. The structure of the yacht code should be parallel to the laws and regulations of merchant ships including the definition, classification, survey, registration, navigation, club management, chartering management, security system, yacht drivers and legal liabilities. It is necessary to reconstruct a scientific, reasonable and systematic yacht code which can promote the local development of yacht economy.

### **5.1.3 Enlarge the definition of yacht**

Scientifically define yacht which legalizes yacht chartering. Yachts for chartering purposes should also be supervised. The law should guide the healthy and orderly development of the yacht chartering industry. Other mini-vessels such as motorboats, sports boats and speedboats should also be included in the category of small yachts. These small ships also belong to yacht category in a broad sense. They are used for

sightseeing, leisure, entertainment and sports. These small ships also pose risks to navigational safety as yachts. Therefore, these vessels should also be defined as yachts.

#### **5.1.4 Introduce the concept of public service for yacht activity**

The Wenzhou MSA should improve the public service level of yacht supervision by utilizing resources of social and industrial organizations and strengthening social service system .

To improve the level of public service, we must follow the social management pattern of government guidance, social cooperation and public participation. The construction of yacht public service system should follow two guidelines.

(a) Gradually establish yacht public service system based on local economic development. The guiding principle of the construction of the public service system is to benefit the whole people and to be fair. We should take moderate steps and pursue sustainable development.

(b) The key to the construction of yacht public service system is to encourage innovation by improving the way public services are provided and forming a market participation mechanism for the supply of public services. Give full play to fiscal funds to improve the quality and efficiency of public services by cooperation among government, social organizations, enterprises and citizens.

## **5.2 Update the goal of yacht supervision**

Aiming to build a service-oriented government, promote the “safe and convenient” development of the yacht industry as the goal by updating yacht safety supervision system.

According to the present situation of maritime supervision over yachts in Wenzhou, establish supervision mode consisting of maritime supervision, industry self-regulation and self-management of yacht owners.

“Safety and convenience” are significant to the development of the yacht industry. If there is no safety guarantee, no one dares to drive yachts. The government would also take tough measures to adjust the yacht industry in order to protect public safety. If the administrative procedures are too complicated for yacht activities and there are too many restrictions on navigation, yacht activities would not appeal to the consumers as the privacy and leisure of yachts are not guaranteed.

The yacht industry deserves more attention from all aspects of society as a new business for coastal economic and social development. The government and industry need to introduce policies to support the rapid and sound development of yacht industry.

### **5.2.1 Promote the development of yacht industry and leisure tourism**

At present, the yacht owners are not limited to the rich people and celebrities. It has gradually expanded to middle class families. Therefore, the majority of yacht market is bound to change from large and medium yachts to small yachts. In addition, the consuming means and consumer group in China’s yacht market would markedly

different from foreign countries. It is estimated that the main consumption mode of yachts is likely to shift to chartering in China which will involve the individual security of the yacht charterer. Thus, the supervision over chartered yachts should be different from private yachts.

In another aspect, in the design of maritime supervision system over yacht, maritime authority should provide convenient services to yacht owners in yacht survey, yacht registration and daily inspections. Simplify the approval process and shorten the time limit. Reduce restrictions on yacht navigation as long as it does not affect the navigation safety.

At the same time, provide necessary navigational support for yachts such as navigation aids, nautical charts and navigation areas. The maritime authority should support the development of local yacht industry and leisure tourism, boosting the local economy.

### **5.2.2 Balance the navigation safety of yacht and merchant ship**

As the yacht is for private use and its risk is undertaken by the yacht owners, supervision measures should be the combination of positive guidance and negative prohibition with encourage and punishment.

The government's responsibility is to ensure public safety. But yachts are different from merchant ships. They do not participate in public transportation. Therefore, the maritime authority should reduce interventions on yachts, focusing on supervision at the early stage. For example, implement strict standards at the construction stage of yachts while implementing a loose supervision mode in the following yacht

activities.

In order to balance the navigation safety of yachts and merchant ships, three feasible measures are as follows. Firstly, ensure that the yacht is seaworthy. Secondly, ensure the yacht driver's competency ability. Thirdly, keep the yachts away from dense traffic are by delimiting prohibited area for yachts. But do not just simply confine yachts in narrow waters.

### **5.3 Clear division of yacht supervision**

In order to effectively implement yacht maritime supervision over yachts, we cannot just rely on the government, but cooperate with third parties and yacht owners, realizing the integration of government, industry self-discipline and self-regulation of yacht owners.

The relevant government departments are only parts of the participants in maintaining yacht safety. The yacht clubs and yacht owners can also rely on their own advantages and existing resources to ensure yacht safety.

#### **5.3.1 Division of yacht supervision among different government departments**

There are over 20 governments related to the supervision of yacht industry. But there is no clear competent authority or comprehensive supervision department. The supervision boundary of each department is not clear and their management modes are different. There is no interconnection of information between these departments. There are overlaps and loopholes in management which brings great inconvenience to the development of yacht industry.

In the future, the government should clarify the functions and responsibilities of different departments by legislation, avoiding overlapping supervision and supervision loopholes.

### **5.3.2 Division of safety responsibility among yacht owner, yacht driver, yacht club and industry association**

Yacht owners are the legal owner of yachts. They are the liability subjects of yacht safety and pollution prevention.

Yacht drivers are the actual operators of yacht activities. There should also be punishment for their illegal driving. Through the continuous improvement of the legal system and construction of monitoring network for yacht driving, carry out automatic monitoring of yacht activity by automatic capture of violations of yacht-driving regulations. Increase the coverage of the inspection and punishment of illegal driving behavior. Violations of the law shall be punished and discourage fluke mind. Then in the long run, yacht drivers will get used to abiding by law by enhancing the deterrent power of the law.

Yacht clubs are similar to shipping companies. Yacht clubs should sign agreements with yacht owners with the commitments of fulfilling the duties of yacht supervision and providing supporting facilities. In addition, the yacht club should also assume parts of the maritime supervision responsibility. For example, carry out supervision of the maintenance and berthing of yachts; Carry out training about pollution prevention and search & rescue; Supervise yachts to comply with the maritime safety regulations; Provide meteorological and hydrological information for yacht navigation; Prohibit yachts from navigating and inform yachts to return in heavy



weather.

The yacht industry association should set standards for industry access and self-regulation. It should set the standards for yacht yards, manufacturers of marine products, yacht clubs and yacht chartering companies. The association can also coordinate and resolve disputes in industry affairs and give advice when the government department formulates relevant policies and measures.

### **5.3.3 Take advantage of the public governance theory**

By applying the public governance theory, the maritime authority can delegate some functions and responsibilities to various social organizations and third parties. For example, authorize certain professional and technical administrative affairs to certain professional social organizations to improve efficiency; Delegate some minor and temporary administrative affairs to other organizations to alleviate its own administrative burden.

Delegate parts of the increasing number of administrative affairs to social organizations by privatization and socialization. It is also favorable to coordinate the relationship between the government and the citizens and reduce their conflicts.

For example, professional yacht surveys can be completed by a qualified third party if the survey involves equipment for navigation safety, communication and pollution prevention; Delegate some supervision activities to yacht clubs or yacht associations, which is more flexible and convenient for yacht activities.

It is conducive to the sound and all-round development of yacht industry

## **5.4 Update the supervision mode of yacht**

The maritime supervision mode over yacht is imperfect in Wenzhou. The maritime authority should update the supervision mode in the aspects of yacht survey, yacht registration, on-site supervision of yachts, yacht club management and tracking management of yacht drivers in order to adapt to the rapid development of yacht industry.

### **5.4.1 Convenient and flexible supervision mode**

In the process of implementing supervision over yachts, the maritime authority should consider how to facilitate yacht activities. The supervision mode of merchant ships does not adapt to the development of yacht industry. It is necessary to establish a convenient and flexible supervision mode for yachts.

Formulate a negative list which clarifies restrictions on yacht activity. Simplify various application procedures. Avoid restrictions on yacht activities for items which are not on the negative list.

Introduce integrity system of yachts by implementing a black, white and gray list system of yachts. For a yacht with good performance, the maritime authority can give preferential treatment by reducing yacht safety inspections and simplifying reporting procedure of entering and leaving the port. For a yacht with poor performance, the maritime authority can put it on the key supervision list with tougher supervision measures.

The integrity system of yachts can encourage yacht owners, yacht drivers and yacht

clubs to abide by relevant yacht laws and regulations to get practical benefits in yacht activities.

#### **5.4.2 Different supervision modes over different kinds of yachts**

Wenzhou MSA can learn lessons from the countries with more developed yacht supervision by implementing differentiated yacht supervision over different yachts. Yachts can be classified into different categories according to certain criteria. For example, yachts can be classified according to their size, function and navigation area. Different supervision measures are applied to different types of yachts.

In the aspect of yacht survey, simplify the survey of small yachts by adopting product certification survey; Implement strict survey of large yacht and commercial yacht. Issue survey certificates to those yachts by strictly implementing statutory survey regulations and procedures.

In the aspect of yacht registration, simplify registration procedures for small yachts. Yacht owners can apply for yacht registration with the product qualification certificate. And eliminate domicile restrictions on yacht registration. Yacht owners have the right to choose where they apply for yacht registration.

In the aspect of yacht drivers, further optimize the classification of yacht driver's certificate. Combined with the trend of yacht development, implement differentiated supervision of training, examination and certification of yacht drivers according to the new yacht classification criteria.

Increase the passenger capacity for yachts which shall be supervised as passenger

ships. The number of “20 (people)” is too small for the popularization of yacht activities. Yachts carrying passengers in excess of the standard shall be strictly supervised in accordance with the passenger ship standards.

#### **5.4.3 Legalize and supervise yacht chartering**

The maritime authority should support the business of yacht chartering by admitting it in the yacht code. Yachts for chartering purposes should also be defined as yachts. Although chartered yachts are also profit-making, the main purpose is still for sightseeing, leisure and entertainment. They are not for the purpose of carrying passengers or cargoes. The purpose of the yacht has not changed because of chartering.

Therefore, chartered yacht can be defined as commercial yacht as it is different from private yacht and passenger ship in nature. There are many commercial yachts in China’s yacht clubs. Yacht chartering is one of the main businesses of yacht clubs.

As chartered yachts involve life safety of people other than yacht owners, the maritime authority should establish supervision system different from that of private yachts. Commercial yachts for chartering purposes must obtain the qualification certificate for yacht chartering. Large commercial yachts must also implement minimum safe manning. Yacht drivers of large commercial yachts must have experiences on merchant ships. The survey standards of communication equipment and life-saving appliances for commercial yachts must be higher than those for private yachts.

#### **5.4.4 Strengthen the yacht driver's supervision after certification**

About the supervision of yacht drivers, there should be knowledge renewal exam for them when their certificates are to expire. Maritime authorities should strengthen the training of yacht drivers in nautical knowledge, practical operations, collision prevention regulations, emergency rescue and good driving habits.

The maritime authority can learn from the management of seafarers, introducing marking system for yacht drivers. Yacht drivers will be prohibited from driving yachts if the marks are fully deducted within a period of time. Introduce a credit management mechanism by combining illegal driving and personal credit. Clarify the legal responsibilities of yacht drivers to achieve their self-discipline in yacht activities.

#### **5.4.5 Strengthen the supervision over yacht club**

The maritime authority should guide more yacht owners to join yacht clubs to realize the shift from individual management to professional and specialized management of yachts.

Yacht clubs should establish an efficient safety supervision system, while the maritime authority should build regular inspection mechanism for yacht clubs. The inspection priority should be its ability to ensure yacht safety and prevent pollution and the operation of its safety management system. The supervision system is supplemented by appropriate administrative penalty system.

- (a) If there is a yacht accident, maritime authority should inspect the yacht club which manage the yacht and randomly inspect other yacht clubs.
- (b) It is compulsory for the yacht club to designate an employee to be responsible for checking hidden risks for yacht safety.
- (c) The supervision system of yacht club should also include pollution prevention of yachts.
- (d) Clarify the responsibility of yacht club in managing the marina.
- (e) Referring to ISM Code, the responsibility for yacht supervision is allocated to individual employees, which ensures that poor management would be punished.
- (f) An administrative penalty shall be imposed on a yacht club that fails to meet the standard of supervision capacity.

#### **5.4.6 Take advantage of the information technology and other advanced techniques**

Build an intelligent yacht supervision platform based on big data and information technology. It is mandatory for all yachts to install AIS and emergency position indication equipment. The equipment is non-removable and powered by solar panels. It should also adapt to the harsh environment of high temperature, high humidity and high salinity at sea. The intelligent yacht supervision platform shall have the following functions.

(a) Maritime authority can track the yacht navigation route by the AIS system. Realize the real-time monitoring of yacht position by setting up monitoring areas and rules in the system and receiving yacht position information sent by a locator.

(b) Provide necessary safety information and warning services for yacht activities. The platform will automatically generate alarm information and send it to the MSA officers on duty if the yachts violate certain navigation regulations. For example, some yachts cannot navigate at night and sensitive times. Yachts cannot navigate over limited speed and out of permitted navigation area.

Develop a navigation system for yachts. The yacht driver can send emergency messages to the search and rescue center via the onboard navigation system. The search and rescue center can find the position of the yacht and response to the alarm as soon as possible.

(g) The maritime authority can carry out various types of patrol activities by using drones and CCTV in yacht activity areas.

(h) Construct regional yacht supervision database in which different government departments can share yacht information and coordinate supervision activities.

#### **5.4.7 Strengthen the search and rescue for yacht accident**

The maritime authority can take the following measures to strengthen the search and rescue for yacht accident in Wenzhou.

(a) The maritime authority should know the locations of yachts with the yacht report

system and real-time data of the intelligent yacht supervision platform. In case of yacht emergencies, the search and rescue center can accurately deploy search and rescue units to the spot of the accident. It will improve the emergency response capacity and efficiency.

(b) Enhance the emergency rescue capability of the yacht clubs. The yacht club should draw up emergency plan for yacht emergencies and prepare salvage vessel or designate a yacht as salvage vessel. It should strengthen personnel training and improve communications and rescue equipment. It should also prevent the yacht accident from happening by providing navigational safety information to yachts.

(c) Establish an association of volunteers for maritime search and rescue. Volunteers can be fisherman, yacht owners, crew of merchant ships and citizens living near the shore. Volunteers are usually more flexible and rapid than professional rescue personnel.



## **Chapter 6 Summary and Conclusions**

The 21st century is the ocean century. The marine economy will reinvigorate the global economy and the yacht industry is a key part in the development of marine industry.

Although China's yacht industry has started to develop relatively later, it has a great development momentum or even becomes an important booster for the rapid development of regional economy. Wenzhou has natural and social advantages for developing yacht industry.

As yacht industry is relatively new in China, the maritime supervision over yacht is imperfect which has a gap with the yacht supervision in developed countries. It does not appropriately apply the public governance theory and public service theory. The supervision mode is old-fashioned. The legal system is incomplete. The public services are inadequate. All these problems will become the key constraints to the sound development of yacht industry.

Public governance has advantages over single administrative supervision. Applying public governance in maritime supervision over yachts has the following merits. Firstly, it can alleviate the administrative burden of maritime authorities. Secondly, it can make full use of the public resources such as industry associations and yacht clubs. Thirdly, it can cultivate a self-regulation culture among the citizens like yacht owners. The public governance theory can enhance the effectiveness of maritime supervision over yachts and develop a credit system of yacht supervision by cooperation among the government, social organizations, enterprises and citizens.

Yachts belong to high-grade consumer goods which have special needs for public services. The maritime authority should improve public services which can encourage yacht consumption and yacht activities, satisfying consumer's needs for safe and convenient yacht activities.

In this paper, the maritime authority needs to change the traditional supervision mode

over yacht. The Wenzhou MSA should establish a new service-oriented yacht supervision mode by fully grasping the characteristics of yachts. As a competent authority of maritime supervision, Wenzhou MSA only needs to supervise yacht activities within its administrative scope, avoiding intervention on economic activities of enterprises and private activities. It should improve its yacht supervision and provide public services in the following aspects.

(a) Enact a unified yacht code to standardize yacht supervision and provide legal foundation for the supervision activities of yachts.

(b) Establish a convenient and flexible supervision mode for yachts, which is different from that of merchant ships. Reduce safety inspections on yachts but highlight legal liabilities of relevant people and organizations in order to ensure self-discipline of stakeholders in yacht industry.

(c) Implement differentiated supervision over different sizes and types of yachts. Classify yachts according to size, function and navigation area. Simplify the survey procedure for small yachts which constitute the majority of yachts in Wenzhou. Implement strict supervision measures on large commercial yachts with statutory survey and safe manning management.

(d) Clarify the responsibilities of different departments by legislation, avoiding overlapping supervision and supervision loopholes.

(e) Legalize and supervise the yacht chartering business which is actually very popular but lacks legal support. But the supervision measures for chartered yachts should be different from private yachts which are only used by yacht owners.

(f) Establish a follow-up supervision system for yacht drivers in order to strengthen their supervision after the issuing of yacht driver's certificates. Introduce a credit management mechanism for yacht drivers to promote their self-discipline in yacht activities.

(g) Strengthen the supervision over yacht clubs. Encourage more yachts to join yacht clubs to take advantage of professional and specialized management.

(h) Take advantage of the Information Technology and other advanced techniques to assist the supervision activities of yachts. Utilizing new technologies can enhance the efficiency and effectiveness of yacht supervision. Maritime authority can monitor the position of yachts and provide necessary safety information and early warning services for yacht activities with the new system and equipment.

(i) Strengthen the search and rescue for yacht accidents by new techniques and other search & rescue resources such as yacht clubs and volunteers.

By establishing a new service-oriented maritime supervision mode over yachts, Wenzhou MSA can make more contributions to the development of yacht industry and local economy.

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