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Factors analysis and operation improving measures for Thai flag vessels

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Shanghai, China

Factors analysis and operation improving Measures for Thai flag vessels

By

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A research paper submitted to World Maritime University in Partial Fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE

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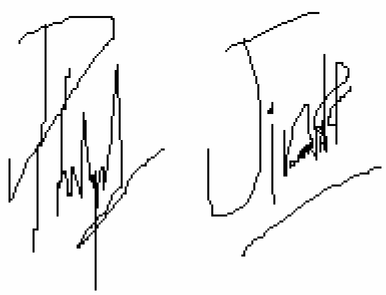
DECLARATION

I hereby to certified that all the materials in this research paper which is not my own work has been all identified, and that no materials are included for which a degree has previously been conferred on me.

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

Philumpha Jirasatit



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ABSTRACT

Title of dissertation**: Factors analysis and operation improving measures for Thai flag vessels**

Degree: **Master of Science in international transport and Logistics**

Abstract: More than 90% of Thai International trade belongs to seaborne trade but Thai fleets are still lack of quantity and quality to serve this large amount of the demand of the country. There are many problems that Thai flag vessels are facing with and this thesis is to analyze those factors in both quantitative way by using SWOT and PEST analysis in order to see the overall picture about Thailand's economic and the situation of Thai flag vessels and by using Trend Prediction model in order to tackle those problems and transfer it into enumeration which make us see through them more clearly so that we know which way that we should follow. Finally, at the end of this thesis will give the reader the conclusion and the improving measure ahead for the overall image of how to improve the Thai flag vessels.

Additionally, there are some opinions from many sectors in Thai Maritime business like Thai seafarers, Thai freight forwarder, Thai marine officers, etc which can reveal the real problems and situation that occurred in Marine industry in Thailand.

KEYWORDS: Thai flag vessels, Thai seaborne trade, Legal, Financial, Seafarers, SWOT, PEST, and Forecasting

TABLE OF CONTENTS

LIST OF ABBRVIATIONS

EXIM Bank	Bank for Export and Import of Thailand
BOI	Board of Investment
LOA	Length overall
NGO	Non-government Organization
WTO	World Trade Organization
UNCTAD	United Nations Conference on Trade and Development
GDP	Gross Domestic product
TSA	Thai Shipowners' Association
K-Bank	Kasikorn Bank

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CHAPTER 1 INTRODUCTION

1.1 Research Topic Source and Introduction

The international trade is the most important factor to the economic development of each country. If any countries have the large amount of export, it can be reflected of the economic potential as well as the income of that particular country. The most important thing of the international trade is the seaborne trade as more than 90% of the international trade base on seaborne trade.[1] So, it can be said that the international trade is the basic factor in the economic development and the things which is played the most significant role in the seaborne trade of each country is the merchant fleet, it's not only big but also have to be efficient in many ways as following:

1. The merchant fleet can be used as a tool to develop and boost up trading an exporting. If that particular country has the efficient and sufficient merchant fleet, it can be reduced the principle of the exporters which they can achieve the competitive price[2]. For example, Thai seaborne trade need to be transshipped in international port more than 1 time such as in Singapore, Hong Kong or Taiwan which it effects to the higher cost of Thai commodities as the freight for transshipment is higher than one stop service and it's waste more time which mean if Thai merchant fleet can directly deliver to the destination, it can be reduced both money and time as well[3].
2. The exporters will have more power in negotiation about the freight rate as they don't need to rely on the international merchant fleet and the country will not be take the advantage from the International merchant fleet.
3. To save the foreign currency for the income of the country. For example: If Thailand has enough Thai merchant fleet, then Thai exporters don't have to use International fleet service anymore which

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[1] Chaiyos Chaimankong, " The role of Thai merchant fleet", Maritime journal Vol.14, (January 1995), Page 1

[2] Prasertsiri Sukkawattanakul, "How to set the international ship registration and the model of how to bill the law of international ship registration in Thailand", Maritime journal Vol.17 (April 1998), Page 65

[3] Chaiyos Chaimankong, already quoted in footnote 1, Page 1

they have to pay the freight rate in foreign currency. Furthermore, Thai merchant fleet may deliver their service in foreign countries which it can create the income to Thailand too.

4. To create the job to the country both aboard and ashore job.
5. To support shipyard industry to the country if the country has the big merchant fleet.
6. If Thailand has adequate Thai merchant fleet, it will be used to guarantee the exporters about the service that can meet the requirement, the lower cost as it has lower freight rate and not changeable in seasonal or short-term market situation.
7. To give the advantage in Military as in the War time, merchant fleet can be adapted as a war fleet or it can be used as a supportive fleet such as deliver foods, weapons, bunker, etc. which the troops don't need to provide or invest a large amount of money in this supportive fleet.

In each year, Thailand has to export a large amount of agricultural commodities and import a great number of gasolines and machinery which the nature of these kind of commodities need to be delivered by sealifts also Thailand has the boundary which connected to the sea which make Thailand need to rely on seaborne trade more than other paths in international trade**.** As more than 90% of Thailand international trade relies on seaborne trade but Thai fleet is very small which it's not enough for the transportation of the country, so international fleet will be used instead of Thai fleet. According to the statistic, Thai fleet can only gain 10% of the overall export commodities which continually effect to the balance of trade deficit as Thailand loss foreign currency for the freight rate to the international fleet up to 88% or 113,000 million baths per year[4], it's not only loss in the form of the freight rate, but also in another kind of the expenditures such as lift-on lift-off cost, documents fees, etc. It can be said that the increasing in the international trade of Thailand, the more trade deficit occur as it used to happen in Tom-yam-kung crisis, 1997.

[4] Prasertsiri Sukkawattanakul, already quoted in footnote 2, Page 66

Besides, to rely on the international fleet up to 80% will affect to the unfairness increasing the freight rate of the international fleet while Thai government still has no preventive measure to struggle these international fleet because the truth is Thailand still fall behind and lack of the negotiation capability like the effective merchant fleet. Therefore, Thailand still has to use the service of those international fleet even they took the advantage from Thai shippers. Furthermore, this situation can be harmful to the stability of the country especially when it has the crisis. For example: In the case of lacking slot in the market or when the shipping companies gathered together to reduce the service in order to force Thai exporters about the freight rate, service route or the slot or even in the war time, etc. If these situations occurred, it'll affect to the international trade of the country or it can be up to severe level such as economic bog or unemployed problem like it used to happened before in 1997[5].

These are the reasons why Thai government should give the precedence in increasing the quantity and the quality of Thai merchant fleet in order to achieve the requirement of the country and gain the power in negotiation with the international fleet as well.

Picture 1 Thai vessel

Source: Picture obtained from internet source

5 Chaiyos Chaimankong, " The problem and the obstacle in development of Thai merchant fleet", Maritime journal Vol.14 edition , (May 1995), Page 49

1.2 Aim of the Thesis

The first aim of this research is to make clear the scope of considering factors to develop Thai flag vessels in order to give the most benefit to Thailand under the limitation resources. And the second aim is to make the draft pattern of how to develop Thai flag vessels by suggesting the suitable investment procedure especially to the "Cross trade fleet" which can make the freight earning to the country by reduction in logistics costs. Then, the third aim is to increase the power in negotiation of the freight rate with the international fleets and it also can guarantee the more stable in the shipping industry of the country. For the fourth aim is to create more job to Thai people if Thai flag vessels can be improved which it can generate the income to the related business in Thailand such as crewing, port, shipyard, Logistics Company, etc. And the fifth aim is about to illuminate the considering factors of Thai ship owners when they decide to choose the nationality for their ships as well as the obstacles and the limitations of Thai vessel registration. Then, the last aim is to give the recommendations to the threats of Financial in Thailand.

1.3 Literature review

1.3.1 Current situation of world's merchant fleet

Presently, more than 50% of the world's merchant vessels which is measured by tonnage are registered under the open registered due to many reasons such as exemption from the taxes, avoid national regulations, accepted by both classification societies and all nationalities or even the advantages of qualified crew with the lower wages, etc. (Wikipedia). Even thought Li and Wonham (1999) said that the ship in the open registered are quite substandard, even their safety record are acceptable. Therefore, those are the reasons that most of the ship owners choose to register their ship under the flag of convenient instead of their own' flag. Moreover, the demand for Asian seaborne trade has almost 7.4 billion tones figure especially the flow China which has the sharply growth in the past three years said by Anil Devli, 2008(Executive director of Shreyas Shipping and Logistics Ltd).

1.3.2 Current situation of Thai marine industry

As we already known that shipping business required high capital investment and long period of time to payback. So, it's high risk business which the bank will charge higher interest rate than other kinds of business (Professor Pierre, Finance and investment appraisal).

Due to Thailand has a freedom for shipping business which opened to both Thai and foreigner operators who are qualified as it's supported by Thai's regulation. Therefore, it makes Thai ship operators under pressure because of the fierce competition in the shipping industry. If they fly Thai flags, it will be more difficult for them to access to some port in some countries due to the bad reputation of Thai flag vessel even it's on the blacklist (Port State inspection 2006-2008). As the problem of the legal framework in Thailand which is so difficult for Thai ship owner to operate their business, so they preferred international flag instead of Thai flag vessel. Moreover, it has very small supportive from the government in both legal aspect and financial way (Depth interview from Capt. Trakul Pumsnoh, Principle of Office of Maritime Consultant Co., Ltd.)

1.3.3 Research Methodology

"PEST analysis" stands for Political, Economic, Social and Technology factors that the companies should do the analysis in order to understand more about the overall picture of the environment that the companies operating. (Adrian Haberberg and Alison Rieple,2000). Furthermore, PEST analysis is normally used with another analysis method which is "SWOT analysis", it is an acronym for Strengths, Weaknesses, Opportunities and Threats which created by Albert S Humphrey. (Wikipedia).SWOT and PEST can be perfectly work together as SWOT will be used to analysis companies itself while PEST analysis will be used to analysis overall situation in the market. And the last method which is the only one quantitative method that I'll use in this thesis that is "Trend prediction model". It is one kind of Time series methods which used to forecast the future events by only based on the known past value of the times series. (Handout in Decision Making subject by Prof. Yuan Qun)

1.3.4 Existing problems

1. Most of Thai flags vessels are old vessels which the widest range is in the age between 20-24 years which the proportion is 31.66% and the second rank is the vessel which the age is between 25-29 years is about 21.59% and the ages less than 5 years only 3.59% (Thai marine department, August 2008). On the other hand, in Singapore, only less than 17 years old vessel is allowed to registered (MPA Singapore).
2. For the problem of conventions, according to Thailand has ratified only 13 conventions(International marine department of Thailand, 2008), to name a few like Tonnage69, SOLAS74, STCW78, Colreg72, Loadlines66, MARPOL73/78(Tokyo-Mou annual report2008) which is much less than other countries in C type countries like Singapore or Philippines which makes Thailand has less competitive advantages in many aspects such as not qualified for some ports, unreliable perspective even Thai vessels ratified the convention due to the un-strictly practice, etc. (Thai Ministry of Foreign Affair)
3. Thai flag vessels are difficult to have competitive advantage in the international trade vessels which the crew is main problem if we compare with Philippines which supported by the new policy about exporting crew of President Gloria Macapagal Arroyo or India which are going to have the Indian Maritime University in order to increase the higher standard in Marine field said by Baalu, 2008 (Union Minister for Shipping and Road Transport T.R.). Therefore, it’s difficult for Thai’ crew to achieve the standard of STCW95 convention due to the problem of language and lacking of standard training. (Marine Department of Thailand)
4. As I’ve a chance to have a short interview with Capt. Trakul Pumsnoh, Principle of Office of Maritime Consultant Co., Ltd. about the level of Thai flag vessels, he mentioned that most of Thai flag vessels are still substandard, so the insurance companies will charge higher premium due to the high risk which will make the Thai ship owner decided to buy less insurance to cover their loss and the crew will be ignored as a loophole in the law about Thailand is not yet ratified ILO which allowed Thai ship owner to refuse their responsibilities to their crews.(Merchant Marine Alumni Association Community, 2009) Moreover, there are no laws that directly govern the seafarers’ protection and welfare in Thailand and Thailand only ratified 2

conventions which related with the seafarers that are SOLAS74 and STCW78 as amended 95. Finally, the burden will fall to the crews and their families.(Merchant Marine Training Center, Thailand)

5. Mr.Dusit Nonthanakorn ,Vice-President of Thai Chamber of Commerce (2008) said that according to the survey results about the confidence to invest in Thailand from 156 International investors, it mentioned that the main problems which most of investors afraid of is the political instability, high gasoline price and Thai's economy respectively. Therefore, if those problems are being continued, they will choose to invest in other countries especially Vietnam and Malaysia.
6. Presently Thai government emphasizing on multimodal transport in order to cooperate with other countries in ASEAN about the better transportation (Chinachart Vatanasuchart,2005) such as the "Second Chiang Saen port" has been constructed in 2009in order to facilitate the increasing of the trade between Thailand and China, etc. but the term is not yet well developed in Thailand as it has no specific law to govern the multimodal transportation which nowadays Thailand still using the existing Thai law on the carriage of goods in the Thai Civil and Commercial Code and/or Thai Carriage of goods by Sea Act (Pimvimol Vipamaneerut, 2001.) and Thailand is still far from to be the good logistics hub due to the lacking of the inefficiency infrastructure, no sustainable plans and no cooperate among the related section and the most important factor is the limitation in budget to support the multimodal transportation. (Suphitcha Phoemphoonthanyakit,2009)

As we knew that Marine transportation industry is the main input for every industry in the national economy especially in Thailand that has the vantage point in geography as Thailand located in the middle of Southeast Asia and the borderlines connect to the sea. Moreover, according to Thai Prime Minister Abhisit Vejjajiva has predicted the Thai economic since last year that the Thailand economic in 2010 will be improved due to the new government projects such as develop logistics of the country both in land and water, improve the standard of Thai' education, etc. (The China Post, 2009)

However, the government projects like develop logistics seems not enough criteria to improve the Marine industry due to in Thailand still has problem about

Maritime law which still lag behind the international standard due to has not yet ratified many conventions (Tokyo-Mou) that required by some international port state control which make Thai flag vessel has no opportunities to enter those ports, so Thai ship owner will prefer to register their vessels into open registered in order to operate and expand their business, like in Singapore will offer the promotions to any ship owners who registered their ship in Singapore flag, also support the Maritime loan as well (MPA Singapore), that's why I choose Singapore to make the comparison in 3 aspects in order to see the different between well developed flag and flags that are in the blacklist.

Finally, those 3 qualitative and quantitative methods; PEST, SWOT and Trend Prediction Model will be altogether used in order to cover every aspects of the factors analysis and operation improving measures for Thai flag vessels in order to meet the requirement of the international standard and the demand of the market.

1.4 Research Content of the Thesis

According to international trade in Thailand is continually increasing which it suppose to increase the number of Thai merchant fleet but the situation is not what it should be. According to the Marine Department of Thailand, more than 90% of Thailand' international trade is depended on seaborne trade but Thai flag vessels only gain 10% freight and the rest 90% of the freight is belonged to the international flag vessels which mean Thai flag vessels will lost income approximately more than 500,000 million baht per year to international flag vessels.

Moreover, the [6]Review of Maritime Transport 2008 have set the rank of the first 35 biggest flags of registration with the largest registered deadweight tonnage, and we found out that Thai fleet is ranked at 35th which is the smallest fleets compared with another 4 ASEAN countries that are Singapore, Indonesia, Malaysia, Philippines and Vietnam. Besides, the average age of Thai flag vessels is more than 23 years as we can see from figure 1 and Thai ship owners and International Ship management Companies in Thailand preferred to register their new vessels in International flag instead of register in Thai flag vessels due to the reason of more acceptable in international ports. Then the old vessels are left to register in Thai flag vessels as it has no law to limit the age of the vessels and Thailand is now ratified only SOLAS74

[6] Data supplied by Lloyd's Register-Fairplay for UNCTAD. "Review of Maritime 2008"

as amended which the condition of the old vessels can only obey the regulations in SOLAS74 but still imperfect fulfillment.

Table 1-1: Proportion of Dry bulk and Liquid bulk vessels for Thai fleet

Age of the vessel	**Vessel for dry cargo(Dry bulk)**		**Vessel for liquid cargo (Tanker)**		**Total**		**Proportion of each DWT**
(Year)	**Ships**	**DWT**	**Ships**	**DWT**	**Ships**	**DWT**	**(%)**
<5	14	134,359	23	7,650	16	142,009	3.59
5-9	6	147,137	3	16,848	9	163,985	4.15
10-14	40	750,027	12	44,554	52	794,580	20.09
15-19	13	216,630	20	49,358	33	265,988	6.72
20-24	53	1,101,361	54	150,863	107	1,252,224	31.66
25-29	55	570,678	83	283,200	138	853,878	21.59
>30	53	336,625	68	146,245	121	482,870	12.21
total	234	3,256,816	242	698,179	476	3,955,535	100

Source: Report from Marine department of Thailand, August 2009

Nowadays, Thailand still have no specific law about Multimodal transport but Thai government started to emphasize more on Multimodal-modal transport and the Logistics than in the past in order to gain the most effective transportation and it's also the starting point of giving more important to marine transportation instead of emphasizing only on air or road transportation like in the past so that we can reduce the total logistics cost of the country because the logistics cost in Thailand is almost [7]20% of the GDP comparing with other countries in Asia like Singapore or Malaysia which their logistics cost is only 8% and 13% of their GDP.

In this thesis is the considering factors of how to develop Thai fleet vessels which are financial factors, legal factors and seafarers factor by pointing out the problem of the registration the ship in Thailand and the lacking of the financial support from the government as well as the high taxation which is the big obstacles to the Thai ship owners also the problem of the sub standard of the Thai' crew by giving the suggestion in both analysis way of the current situation and the recommendations of what we should do in order to tackle those problems in the future.

[7] Mr. Aram Kornsombut (January 31, 2007). *Transport and Logistics; Infrastructure Development in Thailand: Priorities and the Way Forward*

1.5 Organization & Structure of the Thesis

Chapter 1 is about the background of the thesis like basic data about the proportion of dry bulk and liquid bulk vessels for Thai fleet, aim of this thesis and the literature review and over all of region and Thai' economy which effect to ship registration and the proportion of Thai fleets.

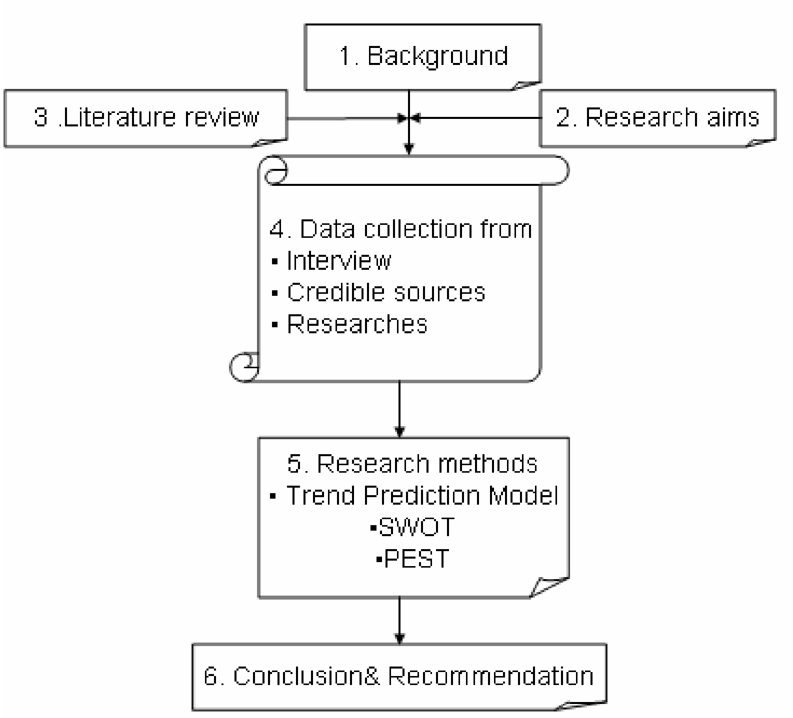
Chapter 2 starts with the forecasting by using Trend prediction model which this model can be show the forecast of the next 5 years about Export& Import of Thailand in order to know the demand of Thai fleets in the market as well as the Balance trade of Thailand. Then follow by, these specify these 3 problems which are Thai substandard crew, ratified a few IMO conventions and difficulties in ship registration. Moreover, the financial factors in Thai Marine Industry are mentioned such as EXIM bank or Maritime soft loan from bank of Thailand, etc.

Chapter 3 is the comparison the current status analysis between Thai merchant fleet and Singapore merchant fleet by these 3 aspects which are Cost, Legal and Privileges.

Chapter 4 is about the qualitative methods which are PEST and SWOT analysis; these 2 analyses are used to analyze Thai fleet development. SWOT and PEST can be perfectly work together as SWOT will be used to analysis companies itself while PEST analysis will be used to analysis overall situation in the market. Then, at the end of the chapter will give the recommendations from the result of the analysis.

Finally chapter 5 will give the overall idea about Thai seaborne trade and what Thai government should do as a recommendation in order to improve Thai flag vessels together with Thai fleet development in order to redeem Thai flag vessel' reputation.

Figure 1 Illustrate thinking outline



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CHAPTER 2: CURRENT STATUS ANALYSIS OF THAI SHIPPING AND CHALLENGES TO DEVELOP THAILAND'S MARINE TRANSPORT

2.1 Forecasting of Thailand International Trade for the next 5 years (2011-2015)

Table 2-1 Thailand International trade statistics

Year	Value:Million Baht			
	Trade Value	Export	Import	Trade Balance
2549	9,880,294.80	4,937,372.20	4,942,922.50	-5,550.30
2550	10,172,305.60	5,302,119.20	4,870,186.40	431,932.80
2551	11,813,853.60	5,851,371.10	5,962,482.50	-111,111.30
2552	9,802,292.50	5,197,121.30	4,605,171.20	591,950.20
2553 Jan	894,688.80	453,421.90	441,266.90	12,155.10
2553 Feb	932,374.60	470,718.30	461,656.30	9,061.90
2553 Mar	1,038,467.90	535,384.00	503,083.90	32,300.10
2553 Apr	918,215.40	452,039.70	466,175.70	-14,136.00
2553 Jan-Apr	3,783,746.60	1,911,563.90	1,872,182.70	39,381.20

Source: Drawn by author Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels. Summarized from International Trade Statistics Report of Ministry of Commerce of Thailand

Table 2-2 Forecasting Thailand Export-Import for the next 5 years (from year 2011-2015)

Year	Time period	Value:Million Baht			
		Trade Value	Export	Import	Trade Balance
2006	1	9,880,294.80	4,937,372.20	4,942,922.50	-5,550.30
2007	2	10,172,305.60	5,302,119.20	4,870,186.40	431,932.80
2008	3	11,813,853.60	5,851,371.10	5,962,482.50	-111,111.30
2009	4	9,802,292.50	5,197,121.30	4,605,171.20	591,950.20
2010 Jan-Apr	5	3,783,746.60	1,911,563.90	1,872,182.70	39,381.20
2011	6	4937586.725	2528033.03	2409553.695	118479.3342
2012	7	4059178.735	2086403.023	1972775.712	113627.3115
2013	8	3337094.889	1721922.745	1615172.144	106750.6014
2014	9	2743505.775	1421114.669	1322391.106	98723.56299
2015	10	2255537.963	1172855.697	1082682.266	90173.43115

Source: Drawn by author Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels.

The yellow area is the forecasting period by using Exponential formula which retrieved from these 2 following graphs.

Figure 2 : Export Forecasting

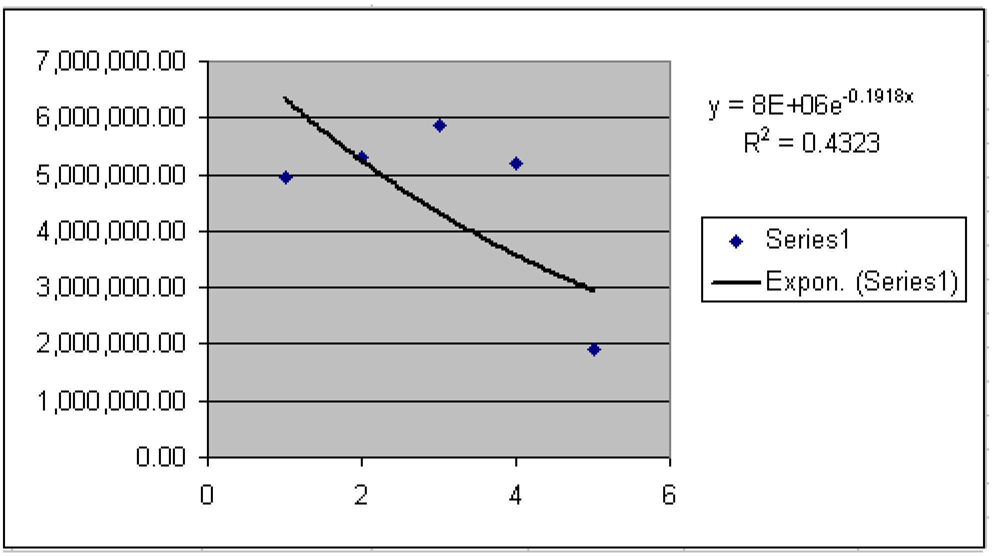

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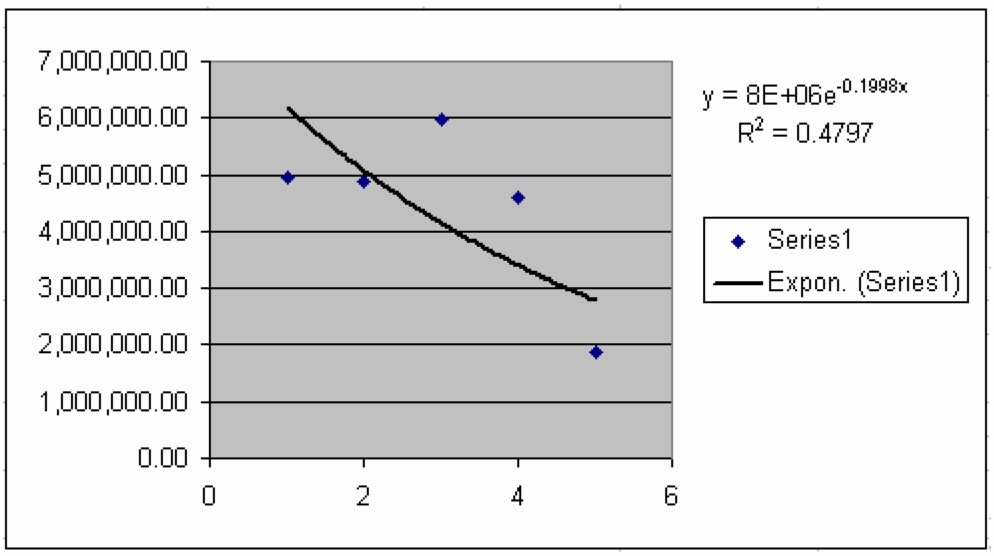
Figure 3 : Import Forecasting



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This is the example of how to forecast Export and Import of Thailand in year 2011.

Export (year 2011): $Y = 8E+06e^{-0.1918x}$ with (R^2=0.4323)

= 8000000*EXP (-0.192*B8)

= 2528033.03

Import (year 2011): $Y = 8E+06^{e-1998x}$ with (R^2=0.4797)

= 8000000*EXP (-0.2*B8)

= 2409553.695

<u>Remarks</u>

- If $R^2 > 0.36$ means the formulation is good, the higher in R^2, the more accurate.
- "B8" in this formula is the cell of the time period in that particular year, in this example B8 is the time period 6in my excel file.
- The purple area is the Trade value which is calculated by

  Trade Value = Export +Import

  Example: Trade Value (year 2011) = 2528033.03+2409553.695

  = 4937586.725
- The green area is the Trade balance which is calculated by

  Trade Balance = Export-Import

  Example: Trade Balance (year 2011) = 2528033.03-2409553.695

  = 118479.3342

As It's mentioned before at the beginning of this thesis that 90% of Thailand International Trade come from seaborne trade but only 10% is come from Thai flag vessel, so it can be calculate the value of Export-Import by 90%* Export or Import value of that particular year then use that result to multiply by 10% again as you can see from this below table.

Example: Export value of Thai seaborne trade (2011) = 2528033.0295349*90%

= 2275229.727

Import Value of Thai seaborne trade (2011) = 2409553.69529762*90%

= 2168598.326

Export value of Thai flags vessels -- 2275229.727*10%= 227522.9727

Import value of Thai flags vessels -- 2168598.326*10%= 216859.8326

Table 2-3 Value of Import-Export by sea transport of Thailand

Year	Export by sea transport	Import by sea transport
2011	227522.9727	216859.8326
2012	187776.2721	177549.814
2013	154973.0471	145365.493
2014	127900.3202	119015.1995
2015	105557.0127	97441.40393

Source: Drawn by author Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels.

The objective of this forecasting is to determine the future trend of the value of Thailand seaborne trade which the trends show that Thai economic is rising up in the next 5 years. What we should do to be successful as the result from this trend is to adjust the strategy to develop Thai merchant fleets by emphasizing on our competitive advantage and try to decrease our weaknesses. It’s not only benefit to Thai merchant fleets, but also to the economic of Thailand as well.

2.2 Existing problems

2.2.1 Seafarers

Thai seafarers are not preferable unlike Filipino seafarers who has lower wage, good in English and more skillful because in Philippines have more than 100 Maritime institutes, universities and colleges which can achieve international standard such as Philippines Seafarers Center, Maritime Academy of Asia and Pacific, Admiral Maritime Training Institutes of the Philippines Inc. (AMTIP), Asian Institute of Maritime Studies (AIMS), etc. While in Thailand, there are only almost 10 Maritime universities, colleges and institutes which are approved by Marine Department of Thailand such as Mariner Education School, Merchant Marine Training Center, Burapha University, Bangkok Maritime Institute, etc. which those educational institutions of both government sector and private sector still cannot create the seafarers to meet the expected demand of the market as the result of the limitation of the budget and lack of the professional trainers. Therefore, it can be said that even the wage of Thai crew is cheaper than Filipino crews but it doesn’t help Thai crews to be in chart of the preferable crews as most of the ship owners who deal with the international trade will prefer to use Filipino crews as these above reasons which Thai government should concern that it’s not only about the wages rate that the ship owner will concern when they decided to choose their crews but it's about the quality of that crews as well.

Besides, the problem that occurred in the private educational institutes is about the policy of Thai government that didn't assist the developed production in both financial supports which it's required for those expensive equipments like Training ship and the lack of facility in regulation which it cannot be motivate private sector to invest in this field. And the last issue about the Thai seafarer is most of them are not Sea Endurance as the responsibility on board are tough work and required the specific skillful as they need to live far away from home for a long time which they may not endure homesick and their biological clock will be changed. So, most of the seafarers may work on board only a short period and some of them are quit their job prematurely. This problem is incurred because these seafarers did not receive the overall information about the job description and the hardness that they have to face with in the real situation. Besides, the training centers are not strict in recruitment because there is no Aptitude test in who likely to be the seafarers which it affects to the deficiency seafarers in the market.

2.2.2 Maritime Law

2.2.2.1 Local Maritime Laws[8]

- [9]The Arrest of Ships Act, B.E.2534

The loophole of this law: The legal indicated that the ship that is detention can be released if the debtor (The ship owner) put the full amount of money that required by the court. However, there should be consider that the debtor can use others asset for guarantee instead of using only money so that it can reduced the burned for Thai vessel that is detention.

- The Mercantile Maritime Promotion Act B.E.2521

The loophole of this law: Even the Mercantile maritime Promotion is under Ministry of transport but it also under manly departments as well such as Ministry of Commerce, Ministry of Finance, Ministry of Foreign Affair, Ministry of Industry, Ministry of Defense, Ministry of Interior, etc. Therefore, Ministry of transport can not

[8] Data retrieved from Marine Department of Thailand

[9] Tilleke&Gibbins Lawyers since 1980
http://www.tillekeandgibbins.com/publications/Newsletters/maritime/arrests_trend.htm

develop the Maritime Promotion that much like adapt the law, adjust finance and monetary measurement.

- The Carriage of Goods by Sea Act, B.E.2534

The loophole of this law: This law covers 6 classifications which are (1) The duty and the rights of the carriers, (2) Delivery order, (3) The duty and the rights of the consignor, (4) The responsibility of the carriers, (5) The exemption liability of the carriers and (6) The limitation liability of the carriers and the calculation in damages. There are some points that should be improved such as the period of time to force the case which is not match with the international law. In Thailand, the time bar for execution is 10 years while Hague Rules: Protocol 1968 cover 1 year.

- The Vessel Mortgages and maritime Liens Act, B.E. 2537

The loophole of this law: The ship that is in the process of building can not be used to mortgage.

- The Thai Vessel Act, B.E.2481

The loophole of this law: The slow in ship registration process and there still not allow Bareboat charter that charter for sea transport in Thai water as Thai flag vessel (exemption in some case according to the international agreement in clause 47) which makes Thai fleets not that expanded.

- [10]The Navigation in Thai Waters Act, B.E.2456

The loophole of this law: The out-of-date language which is far behind the shipping industry in the presently.

2.2.2.2 13 International Conventions that Thailand already ratified;

- IMO Convention 48
- IMO amendments 91
- IMO amendments 93
- International Convention for the Safety of Life at sea 1974
- International Convention on Load Line 1996
- International Convention on Load Line Protocol 1988
- International Convention on Tonnage Measurement of Ships 1969
- Convention on the International Regulations for Preventing Collision at Sea 1972

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[10] Data retrieved in the PDF file from: http://www.tpni.co.th/content/the_act_on_navigation_in_thai_water_b.e._2456.html

- Convention on the International Maritime Satellite Organization 1976
- INMARSAT OA 76
- International Convention on Standards of training Certification and Watchkeeping for Seafarers 1978
- Convention on Facilitation of International Maritime Traffic 1965
- International Convention for the Prevention of Pollution from Ships 1979, as modified by the Protocol of 1978 (Annex I&II)

The particular problem that can be found in each law above is the out-of-date language and lack of update improvement in order to catch up the shipping industry in the current situation.

Moreover, it's about the budget restrain which it's the big obstacle for improvement mechanism of Thai maritime business and it makes Thailand can not ratified others IMO Conventions besides the above one as well as the slow and long process in documentation.

2.2.3 Ship Registration

In Thailand, it's only has the "National Registry System" which is the old style of ship registration and this kind of ship registration is quite strict in the documentations and emphasized on proprietary right in the vessels which mean the person who has the rights to register the vessel has to be the citizen of that country (genuine link) or it's legally set up as the cooperate company of that country. In Thailand, the main Thai vessel Act that we are using nowadays is Thai Vessel Act A.C. 1938[11] which also has 1997[12] amendment attached and corrects only some small point which it's still obsolete and not suitable with the shipping industry at the present. And these are the main point in this Act is still the same which I would like to referred only some of this;

- No less than 51% of the registered capital have to belong to Thai people and the alien can have the share no more than 49%

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11 Thai Vessel Act A.C.1983 (B.E.2481), article 7, PDF file; http://www.thaishipowners.com/V2/maritimelaw.php

12 Ms.Pimvimol Vipamaneerut, Partner and Head of Transportation& Insurance Group, Tilleke&Gibbins, New Amendment Thai Vessel Act, October 1997.

- The amounts of Thai seafarers have to be more than 50% of the overall seafarers[13].
- Cabotage only preserved for Thai fleets.
- Etc.

As you can see that the share of the registered capital for the alien is not attractive and can not motivate the foreign investors to invest in shipping business in Thailand. Moreover, it's too strict and inconvenient which lead to the higher cost especially when we compared with other countries which has the Open registration or International registration or even have the online ship registration service. However, no matter what kind of registration that country used, the objective is the same which is to attract the ship owners to register their ships in their own countries. The problem is incurred in the developing countries which including Thailand that has the objective in developing Thai merchant fleets as the ship registration in Thailand has many constrains like I've mentioned above also about the high taxation, no privilege offer like other countries such as tax exemption or low tax charge and the delay in the process of the documentation, etc.

These following are the details in capital factors which effect to the problem of ship registration in Thailand:

(1) The expenditure for the ship registration is including with the document which relating about the qualification to be Thai ship owner according to what Thai Ship owner Association specification.

(2) High taxation when buying a new ship.

(3) Ship inspection cost which is different from each other between the ships that used in cabotage business and international seaborne trade as following;

(3.1) Thai flag vessel that used in cabotage business

- In Thailand, Thai flag vessels in cabotage business will not use ship inspection from international Classification Society Ltd. (IACS) because it's more expensive if we compared with the ship inspection from Ship survey division, Thai Marine Department.
- As in the International Classification Society has high standard and more restriction which make it effect to the higher cost in inspection while most of the Thai flag vessels in Thailand which used in cabotage business are quite old

[13] Ministerial regulations, version 8 (1997), see also in Thai Vessel Act A.C.1983 clause 1

which they are qualified as a substandard and not pass the qualification from IACS. Therefore, those vessels are chosen to inspect by Thai ship surveyor which is the ship inspection under the flag state and give some benefits to those old ships. Even the certificates from Thai Marine Department are not accepted by the IACS, but for the intra-trade or the cabotage in Thai' territorial water, it's acceptable.

(3.2) Thai flag vessels that used in international trade

- Both of Thai flag vessels or international flag vessels that used in international trade need to use ship inspection from IACS as it's required from the port state control in each international ports. Therefore, it'll not waste time in ship inspection so that no need to pay for the detention but they have to pay more in maintenance cost in order to be qualified by IACS. So, both Thai shipping company and Thai ship operators who operate their ships in international trade have to be burden with the high capital investment such as hi-technology in communication tools, provide quantity of life raft under the IACS' specification, provisions, first aid kit or medicine, capital reserves for spare parts and inventory, etc. Moreover, in Thailand there is a problem about Ship Spare in Transit as ship owners have to pay for the custom clearance which have to pass a long process both in documentation and inspection no matter those spare parts are delivered by Airplane or vessel which finally not only for the documentation fee that the ship owners have to pay but also for the demurrage/detention as well
- Even it's widely accepted by the insurance companies and more ensure to the customers but the capital will be increased due to the higher interest in Hull and machinery Insurance, Protection and Indemnity Insurance and Cargo Insurance as Thai flag vessels has target risk level which means some ships have high risk and some ships have low risk.

2.3 Considering financial factors to develop Thailand' marine transportation

There are measurements to develop and enlarge Thai merchant fleet which is to encourage Thai maritime industry and stimulate the ship registration in Thailand by these following methods:

2.3.1 The Financial support from Thai' government in buying a new ship, expenditures in ship operation, ship repairing or offer low interest but long liquidates as well as facilitate in transferring as well. About the taxation, government should exempt tax for the cabotage business as well as the crew or offer the tax exemption to for the ship owner who import the new ship and offer some privileges to Thai ship owners like decrease dock dues and give the priority to enter the port for Thai flag vessel, preserves some route only for Thai flag vessels, etc.

As most of the Thai ship owners have the limit capital, so most of vessels are quite old and have higher cost in maintenance and repairing. Moreover, when Thai ship owners would like to borrow money from the bank to buy a second hand ship, the goldsmith will have the pre-condition that the ship owner and the vessel should be in the same nationality to precaution in case it has the problem in the lawsuit. Moreover, it has no law to specific the age of the vessel in Thailand which make Thai ship operators and ship owners see this loophole by buying those old ships from foreign countries then register as Thai flag vessels which the consequence is it makes Thai flag vessel be in the blacklist in Tokyo-Mou (Figure 4). While in the international seaborne trade, most of the ship owners preferred to register their new ship in the foreign nationality as the reason of the more acceptable when entering to the international port and more assured in the customer' point of view if their commodities is delivered by a new ship.

Table 2-4 Annual Reports on Port State Control in the Asia-Pacific Region

Flag	Inspections 2007-2009	Detentions 2007-2009	Black to Grey Limit	Grey to White Limit	Excess Factor
BLACK LIST					
Sierra Leone	240	71	24		6.93
Georgia	303	82	29		6.31
Korea, Democratic People's Republic	334	73	32		4.74
Cambodia	5,170	880	393		4.06
Mongolia	596	106	52		3.76
St. Kitts & Nevis	132	27	15		3.66
Indonesia	616	101	54		3.34
Kiribati	315	54	30		3.26
Tuvalu	587	93	52		3.15
Papua New Guinea	48	8	7		1.63
Belize	1,414	135	115		1.44
Thailand	917	89	77		1.39
Viet Nam	1,320	123	108		1.35

Source: Tokyo-Mou Annual report 2009: http://www.tokyo-mou.org/

2.3.3 Maritime soft loans project by bank of Thailand, Maritime loan by EXIM bank, Packing credit, Marine Revolving fund, etc.

In the case of Thailand, it found out that the action plans to develop Thai merchant fleets were used to add in National Economic and Social Developing Plan in many editions. In each plan has the measurement to develop maritime industry in many ways such as to support maritime transportation in both export and import by using Thai fleets, to offer the tax privilege to Thai flag vessels, Thai shipyards and to the one who use the service from Thai fleets, to support every kind of loans that associated with the maritime industry, to stimulate the creation of the crews or the seafarers and the last measurement is to support the marine joint venture to develop Thai marine industry. Besides, the Councils of Ministers had the resolution in many editions since A.D. 1970 and continually released many times which the main point is followed the road map in each National Economic and Social Developing Plan.[14] However, the above measurements are not effective as it should be. Therefore, let me introduce 2 ways of Thai merchant fleet promotion measures that are widely used in Thailand.

- Packing credit: Packing credit is the measure that offer low interest loan to the exporters so that the exporters can use it as a revolving fund in both before and after exports. The procedure is the exporters have to bring the trading documents or depository document from the warehouse and apply to the

[14] Chaiyos Chaimankong, "The development of Thai merchant fleet", Maritime Journal Vol.10,Edition 2, (September 1991), Page 18-25.

commercial bank in order to get the low interest loan which the bank will ask the exporters to sign the promissory note and then this note will be forwarded to the Bank of Thailand as the commercial back also need to refinance from the Bank of Thailand as well.[15]

N. B. This measure has been released by the government since 1982, and then in 1988, Bank of Thailand has been cancelled this measures as that time it has a small number of ship register in Thailand as well as small number of Thai fleet which is not reached the requirement which mean, there is a small quantity of the export by Thai shipping service which using the promissory note. Moreover, since 1994, Bank of Thailand has transferred the responsibility in packing credit to the EXIM bank. Therefore, since that time, the packing credit has not been carried on and there were no packing credit privilege offer to the exporters who using the service from Thai shipping anymore.

- Maritime Soft Loan from Bank of Thailand: The Maritime Soft Loans project by Bank of Thailand has been operated by follow the cabinet resolution since October 22nd, 1996 with the objectives of offering long-term credit to the Thai maritime entrepreneurs for buying both new and second ships. Within the financial amount, half of it is divided to bank of Thailand which around 4,000 million bath was distributed to Bank of Thailand by charging 5% interest, around 2,000 million bath was contributed from EXIM bank, and another 2,000 million bath was conducted by IFCT, which now is no longer exist.
- EXIM Bank: EXIM Bank loaned about 794.8 million baht and loaned in foreign currency around 59.6 million US dollars to 27 shipping operators with 37 ships. The interest rate loan for Thai baht was EXIM Prime rate+1.5% while the interest rate loan for foreign currency was depended on the financial market which was calculated as Libor+2.75% per year and the loan period was around 5-7 years which anyhow was depended on the pay back capability of the operators.[16]

N.B. EXIM Bank continually granted the maritime loans since the end of 1996 to Thai shipping operators for international seaborne trade.

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15 Thai Ship-owners' Association, " The role of Thai merchant fleet in Thai seaborne trade" Executive Summary Report 2002"

16 Executive Summary Report: File p:\01S026_Maritime\Final Report\Summary.doc\7/10/04

CHAPTER 3: THE CURRENT STATUS ANALYSIS BY COMPARING BETWEEN THAI MERCHANT FLEET AND SINGAPORE MERCHANT FLEET

3.1 Introduction of Singapore modal

According to Lloyd's Register's World Fleet statistic[17], Singapore merchant fleet is ranked 7th World's merchant fleet as there were more than 3,400 vessels registered under Singapore flag, so it can be said that Singapore merchant fleet is the largest fleet in Asia. In 1999, there were around 22.6 million gross tonnages which this quantity included vessel's size less than 100 gross tonnages and the annually expanding rate of Singapore merchant fleet is about 10%. Moreover, it's no doubt that why Singapore is in the white list of Tokyo-MOU[18] as the average age of Singapore merchant fleet is only 11 years which is youngest one while the average age of the world fleet is 19 years and if any ship owners would like to register their ships into Singapore flags, the age of their vessels can not be more than 17 years.

Maritime and Port Authority of Singapore is the state agency that has the authority to rule the maritime policy and take care of maritime activity in Singapore. MPA is under the Ministry of Transport, and the mission of MPA is to protect the maritime benefit and to promote Singapore to be the center of maritime transportation in the world by emphasizing on their strengths which are hi-technology in lift-on, lift-off, offer maritime consortium, maritime insurance, well information technology network, rapidly ship registration system, provide maritime university and maritime research institution, high qualified manpower and staffs, etc. These strengths can be certified that Singapore is the Maritime Cluster country.

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17 MPA-Singapore: Singapore is 7th Leading merchant fleet in the world http://www.mpa.gov.sg/sites/global_navigation/news_center/mpa_news/mpa_news_detail.page?filename=990524.xm

18 Tokyo-MOU Annual Report on Port State Control in the Asia-Pacific Region

There are 3 main laws which are related with the maritime transportation business.

1. Merchant Shipping Act
2. Carriage of Goods by Sea Act
3. Prevention of Pollution of Sea Act

In Singapore, there is no regulation that prohibits the foreigners to operate shipping business and the shipping companies which operate in Singapore are not necessary to register with MPA. However, Singapore has rectified the ship register system by make it more rapidly which will be finished within 2 hours if these following documents[19] are well prepared:

- Evident of ownership
- Deletion Certificate of Previous Registry
- Certified Carving and Making Note
- Bill of Sale/Builder's Certificate
- Certificate of Classification
- Trading Certificates

Furthermore, there is no regulation to force the shipping liners not to adjusting their freight rate and there is no Shipping association in Singapore. Besides, Singapore also support the international maritime investment by open the free trade area in many kinds of business which related to shipping industry such as chartering, ship operating, international tugging service, ship survey companies, container yard companies, ship repairing and ship building yard companies and shipping companies, but one condition has to be done that is those ships have to registered under Singapore flag.

And the last important point about Singapore modal is Singapore doesn't have the measurement about Cargo Preference which means both Singaporean shipping service and foreign shipping service will have the same rights to deliver the government's goods which depends on who can offer the lowest freight rate and who can deliver those goods in a shortest period of time.

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[19] MPA-Singapore: Procedure for the permanent registration of a vessel in Singapore. http://www.mpa.gov.sg/sites/port_and_shipping/shipping/registering_a_ship_in_singapore/permanent_registration.page

3.2 Comparison between Singapore and Thailand in 3 aspects; Cost, Legal and Privileges

Table 3-1 Overview comparisons between Singapore and Thailand in 3 aspects

Aspects / Countries	Costs	Legal	Privileges
Singapore	▪ Higher cost for new ship ▪ Efficient administration = low demurrage	▪ Adopt most of IMO conventions ▪ Flexibility to crew nationality ▪ Good safety record ▪ White list	▪ Tax exemption from Singapore income tax ▪ Offer Maritime Finance Incentives ▪ Approved International Shipping Enterprise (AIS) scheme
Thailand	▪ Lower cost in ship as it has no law to limit the age of the vessels ▪ High demurrage due to detention	▪ Adopt only 13 IMO conventions ▪ Allow only Thai crew ▪ Bad safety record ▪ Black list	▪ Employment in domestic trade

Source: Drawn by author ©Copyright Philumpha Jirasatit (2010) by Factors analysis and operation improving measures for Thai flag vessels. Summarized from Information obtained by Thai Marine Department and MPA Singapore web site: http://www.md.go.th/ and http://www.mpa.gov.sg/sites/port_and_shipping/shipping/registering_a_ship_in_singapore/before_registering-pre-requisites.page

3.2.1 Costs

- Vessel age restriction

To achieve international standard, it can be shown in the regulations of that particular country. About the ship registration in Singapore, it's mentioned in "MPA applicable to be Singapore ship owners" that the age of the vessels that would like to be registered under Singapore flags can not be exceed 17 years which will effect to the higher cost in buying a new ship while there is no age restriction in ship registration under Thai flags because if Thailand set that high qualification, the trouble will be burden to Thai ship operators who still has limit capital even it's allow to use an old ship but that capital still need to pay for the maintenance to the old ship as well. So, Thai government would like to help them by set lower restriction in ship registration and this point is the main factor of the problem that why Thai flag vessels are substandard and unacceptable by international.

3.2.2 Legal

- IMO Conventions and Tokyo-Mou annual report

Table 3-2 Inspections and Detentions per flags

Flag	Number of inspections				Number of detentions				3 yrs rolling average detention
	2007	2008	2009	Total	2007	2008	2009	Total	(%)
Singapore	931	1,038	1,200	3,169	22	28	35	85	2.68
Thailand	307	275	335	917	27	26	36	89	9.71

Source: Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels. Retrieved data from Tokyo-Mou Annual report 2009: http://www.tokyo-mou.org/

From the above table, you can see the comparison between Thailand and Singapore about the number of inspection and the number of detention. The proportion of 3 years rolling average detention is almost 3 times different from each other.

You can see that the numbers of Singapore flag vessels that have been inspections more than 3,000 times but the numbers of detentions are only 85 times while the numbers of detentions for Thai flag vessels are up to 89 times even Thai vessels are inspected only 917 times.

Table 3-3 Status of conventions by comparing between Thailand and Singapore

Country/Conventions	Singapore	Thailand
IMO Convention 48	x	x
IMO amendments 91	x	x
IMO amendments 93	x	x
SOLAS Convention 74	x	x
SOLAS Protocol 78	x	
SOLAS Protocol 88	x	
Stockholm Agreement 96		
LOAD LINES Convention 66	x	x
LOAD LINES Protocol 88	x	
TONNAGE Convention 69	x	x
COLREG Convention 72	x	x
CSC Convention 72		
CSC amendments 93		
SFV Protocol 93		
STCW Convention 78	x	x
STCW-F Convention 95		
SAR Convention 79	x	
STP Agreement 71		
STP Protocol 73		
INMARSAT Convention 76	x	x
INMARSAT OA 76	x	x
INMARSAT amendments 94	x	

Country/Conventions	Singapore	Thailand
INMARSAT amendments 98	x	
IMSO amendments 2006		
FACILITATION Convention 65	x	x
MARPOL 73/78 (Annex I/II)	x	x
MARPOL 73/78 (Annex III)	x	
MARPOL 73/78 (Annex IV)	x	
MARPOL 73/78 (Annex V)	x	
MARPOL Protocol 97 (Annex VI)	x	
London Convention 72		
London Convention Protocol 96		
INTERVENTION Convention 69		
INTERVENTION Protocol 73		
CLC Convention 69	d	
CLC Protocol 76	x	
CLC Protocol 92	x	
FUND Convention 71		
FUND Protocol 76		
FUND Protocol 92	x	
FUND Protocol 2003		
NUCLEAR Convention 71		
PAL Convention 74		
PAL Protocol 76		
PAL Protocol 90		
PAL Protocol 02		
LLMC Convention 76	x	
LLMC Protocol 96		
SUA Convention 88	x	
SUA Protocol 88		
SUA Convention 2005		
SUA Protocol 2005		
SALVAGE Convention 89		
OPRC Convention 90	x	x
HNS Convention 96		
OPRC/HNS 2000	x	
BUNKERS CONVENTION 01	x	
ANTI FOULING 01		
BALLASTWATER 2004		
NAIROBI WRC 2007		
HONG KONG SRC 2009		

Source: Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels. Retrieved data from Status of Conventions by countries by IMO: http://www.imo.org/

N.B.: X = accession, ratification
d = denunciation

From the above table, Thailand ratified only 13 conventions while Singapore ratified up to 31 conventions. I'll choose some of conventions to give further explanations. For example; in [20]LL Protocol 1988 which Thailand still not ratifies this convention even this convention covered 94.60% of the world tonnages and up to 97 contracting states has been ratified this convention including with Singapore. The objective of this conventions is to harmonized the convention's survey and certification requirement that is included in SOLAS and MARPOL 73/78 so that it can be solve the problem of when the survey date and interval is not match up and it can be save time, economize and to be more convenient to follow 3 conventions together at the same time. Moreover, in SAR convention 79[21], the objective of this convention is to develop the cooperation plan about searching and rescuing at ashore. SAR entered into force since June22nd, 1985 and nowadays has 96 contracting states and cover 59.48% of the world tonnages which there is only 2 countries in ASEAN ratified SAR conventions 79 which are Singapore and Vietnam. Even Thailand has not ratified this convention yet but The Department of Civil Aviation of Thailand has been set up the Help victims at sea by cooperate with the related department such as [22]Marine Department of Thailand, Royal Thai police and Ministry of Defense in order to search and rescue with effectiveness.

According to the above 2 tables, it can be said that it's no doubt that why Thai flags are in the black-list while Singapore flags are in the white-list of Tokyo-Mou Annual Reports on Port State Control in the Asia-Pacific Region.[23]

- Seafarers nationality

According to Singapore Registry of Ships, there is no restriction about the nationality of the seafarer under Singapore flags, the ship owners can employ your own crews at any nationality but all crews have to pass the standard of STCW1978[24] while under Thai flags required at least 50% Thai crews on board which they also

[20] IMO: Load lines conventions

[21] SAR convention 79: International Convention on Maritime Search and Rescue-SAR 1979

[22] Information gathered by depth interview with Thai ship surveyor.

[23] Tokyo-Mou Annual Reports on Port State Control in the Asia-Pacific Region 2009, Page 31-32

[24] STCW: Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978.

need to pass STCW1978 as well. Moreover, if the ship owners would like to create the [25]Crew Agreement contract, they have to go to Marine Department of Thailand to sign a contract face to face with the officer and those documents which including with the name of both ship owner and crews have to be matched with the name that shown in Ship register and Ship license, which mean if any crews resign, then the process has to start over again because if these 2 documents are not matched with the Crew agreement contract, it will have the problem when the ships enter to the port. Even nowadays most of international country don't have Ship license in international trade, it's only for domestic trade, but in Thailand, Ship license still required for both international trade and domestic trade, so, it's complicated and waste more time if we comparing with Singapore which everything can be done through online.

3.2.3 Privileges

In Thailand, the Value added tax will be charged from the ship operators when they import the ships to Thailand while in Singapore, the operators don't have to pay for tax when they import the ships, so it effects to Thai shipping operators as they have to bear the higher cost. In Thailand, the VAT is 7% of the ship value, which mean the more expensive ship, the higher in tax charge. Moreover, in the case that the ship operators don't apply for the BOI which mean the ship operators have to prepaid the tax and claim back later which it takes a long period of time to get the tax back from the Revenue Department which will effect to Thai ship operators when they want to expand their fleets because they have no cash flow to use in their business.[26]

[25] Depth interview from Mr.Pimook Prayoonprohm (Director of Ship Survey, Marine Department of Thailand)

[26] Retrieve data from Kasikorn Bank , The only one merchant bank in Thailand which offer loan for Maritime business: www.kasikornbank.com

Table 3-4 How to calculate VAT of Thai Ship operators and Singapore Ship operators when they import ships to their countries.

Expenditure (Cost)	Thai flag Vessels	Singapore Flag Vessels
Value Added Tax	• Suppose that this ship costs 15 million USD at the exchange rate 1 USD=32.70 baht, So the ship costs 490.50 million baht • 7% VAT added in ship cost Total = 34.33 million baht	• Suppose that this ship costs 15 million USD at the exchange rate 1 USD=32.70 baht, So the ship costs 490.50 million baht • There is no VAT charge for the ship which is imported to register in Singapore
Interest of VAT	1,158,806.25 Baht[27] (N.B. approximately 6 months VAT refund)	-

Source: Drawn by author Drawn by author ©Copyright Philumpha Jirasatit, (2010) by Factors analysis and operation improving measures for Thai flag vessels

Remarks: In Singapore, they charge 5 % GST (Goods and Service Tax) for the every businesses which operate in their country except shipping business.

27 Source: Bank of Thailand, data retrieve from website www.bot.or.th
Interest rate loan, April 2010 = 6.75%

3.3 Implications

The comparison above can be shown that Singapore fleets predominate over Thai fleets in 3 main aspects. It can be concluded that if Thailand want to achieve International standard like Singapore, Thai government need to reconsider in these following;

1. To participate in main international conventions like Singapore does.
2. There should be stricter about the age of the vessels because some old vessels may cause the accidents and the detentions, that's why Thai flag vessels are in the black list of Tokyo-Mou annual report.
3. To be more flexible about crew nationality, no need to be up to 50% like it's mentioned in Thai Vessel Act B.E.2481, there should be some exemption.
4. There should be no VAT charge for the ship which is imported to register in Thailand so that it can attract more ship owners to register their ships under Thai flags.
5. Thai government should use this strength about the low wage rate of Thai crews and make it as our competitive advantage to compete with exporting crew countries like Philippines or India. Moreover, Chinese crews also increasing and have low wage rate but majority are working on Chinese fleets in order to supply the domestic demand.[28]
6. Thai government should establish more Maritime Institute, University and College in Thailand like Singapore does in order to create more effective human resource.
7. Thai government and private sector should cooperate to each other to set up Maritime consultant or the Maritime specialists who can give the advice on Maritime business as well as establish Maritime fund or Maritime loan that offer low interest rate loan.

[28] Source: BIMCO/ISF Estimates

CHAPTER 4: PEST AND SWOT ANALYSIS OF THAI MARITIME TRANSPORT BUSINESS AND THAI MERCHANT FLEETS

4.1 PEST Analysis

[29]PEST analysis is use to analyze the external macro environment. PEST stands for Political, Economic, Social and Technological. In this case, PEST analysis can be use to analyze the overall situation in Thailand as these following points.

4.1.1 Political[30]

- Thai government allows international shipping companies to freely access to Thai market except some specific route and cabotage.
- Thai government released many Free Trade Area Agreements recently which affects to the increasing in international trade especially by seaborne trade.
- Thai government tried to increase the number of Thai fleet by release many promotional mechanisms such as financial support, not limited the age of the vessel registration, etc.
- Thai government tried to protect Thai shipping market by using Cargo Reservation policy in order to help Thai shipping companies and Thai flag vessels to gain some competitive advantage.
- [31]Thai government released the BOI policy in order to help Thai ship owner who wants to buy new vessels or buy second hand vessels which has the age not exceed than the requirement (like Tanker and Passenger vessels, the age can not be more than 15 years) by giving the loan period for 8 years with the exempt taxation.
- [32] Thai government allowed Thai seafarers who work in the international trade vessels do not need to pay income tax if they work more than 180 days within 1 year round.

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[29] NetMBABusiness Knowledge MBA; http://www.netmba.com/strategy/pest/

[30] "Major maritime policy challenges" from Asia-Pacific Economic Operation

[31] Thailand BOI

[32] Revenue Department of Thailand

- [33]There are only 2 locations which allowed to supply the bunker to vessels in Thailand which are in Chao-praya river (for the small vessels) and in Laem-chabang port (ocean vessel), which these 2 locations are classified as “In-port limited”. Due to the restrain about the tax refund which takes long time and bunker agencies will be investigated by Revenue department of Thailand which international country like Singapore don’t have these kind of problem. And in Thailand not allowed bunker supply for “Out-port limited” as it’s difficult to investigate tax revenue which caused the bunker smuggling and off spec bunker. Moreover, Out-port limited easily incurred the pollution as Thailand has no break water. While in Singapore, it’s allowed to supply bunker both In-port and Out-port limited which make Singapore to be the leader of the world supply bunker.[34]
- [35]Marine Department of Thailand has the responsibility to research and construct international port, when finished construction, then transfer to Port Authority of Thailand will create the income to the country by biding and procure the bidder.

Example; Hutchison port of Thailand which operate some terminal in Lame-chabang port by bidding.

Picture 2 Hutchison Port of Thailand in Laem-chabang

Source: Picture obtained from Hutchison port of Thailand website.

[33] Thai shipowners’ Association, Maritime Directory 2006
[34] MPA Singapore
[35] Hutchison port of Thailand

4.1.2 Economic

Table 4-1 Thailand Economic Forecast year 2010

Economic Forecast year 2010

(% YOY)	2009			2010
	Q3	Q4	2009	Projection
GDP (at 1988 price)	-2.7	5.9	-2.2	3.5-4.5
Total Investment (at 1988 price)	-6.3	-3.4	-9.0	4.6
Private	-12.2	-4.6	-12.8	5.0
Public	8.0	1.1	2.7	3.5
Total Consumption (at 1988 price)	-0.3	1.9	-0.1	2.8
Private	-1.3	1.4	-1.1	3.0
Public	4.8	5.2	5.8	1.6
Export of Goods,	-17.5	12.2	-13.9	15.5
Volume	-15.6	4.4	-14.2	9.0
Import of Goods,	-28.3	1.4	-24.9	24.0
Volume	-24.9	-4.8	-23.0	18.0
Current Account to GDP (%)	5.6	5.9	7.7	4.1
Inflation	-2.2	1.9	-0.9	3.0-4.0
Unemployment rate	1.2	1.0	1.5	1.3

Source: Office of the National Economic and Social Development Board

- The National Economic and Social Development Board forecasted Thailand Economic year 2010 in a good way which it can create the good perspective about Thai economy to Thai people and stimulate them to spend more money which it can circulate the money flow in the Thai economic and the more insurable in investment of the foreign investors as well.
- Political instability since February-May 2010 affected to the credibility of foreign investors toward Thailand.
- As it's announced by Mr.Satit Rungkasiri[36], Director-General of Fiscal Policy Office that Thai economy in March, 2010 continued increasing due to the high growth of export value at 40.9%/year and capital goods import raised 47.6%/ year.

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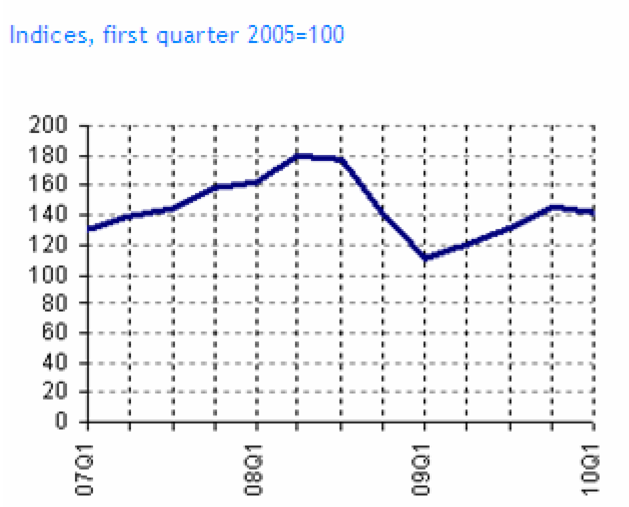
36 Logistic Digest ,Logistics and Supply Chain Information for Thai industries. (25 May 2010).

- Dr. Ekniti Nitithanprapas, Director of Macroeconomic Policy Bureau and Ministry of Finance Spokesperson said that now the global economic recovery in the quarter 1/2010 as you also can see from figure 9 below which lead to the raising in export amount together with the new fiscal and monetary polices from Thai government that want to stimulate the domestic spending but for the second quarter, the situation will not as good as quarter 1 due to the political protest in the business area in Bangkok.

Figure 4 World Merchandise exports, 1st quarter 2007 to 1st quarter 2010



Source: WTO 2010 Press released

4.1.3 Social

- "By nature of Thai people, they don't like to work on board, they work on board for a short period of time as a temporary job only to make and save their money, and then they quit, unlike Pilipino or Indian"; depth interview from Capt. Bhumiphatna Homhualphuttana (Master of The Phulsawat Navy Co., LTD.)
- The difficulty in the livelihood on board as most of Thai crews can not communicate well in English especially in Maritime technical term which caused the problem as misunderstanding among foreign crews and officers; depth interview from 3 officers[37].

4.1.4 Technological

- Technological about communication and documentation process in Thailand still obsolete like no online ship registration, most of the documentation process has to be done by face-to-face, etc.
- As Thaicom satellite was sold to Singapore Telecom under Temasek Holdings in Singapore which this company operates the satellite communication in this region which makes Thailand have to rely on Singapore telecom to operate Maritime communication for Thailand and it's more expensive and takes more time.
- Thailand only has 2 Ship supplier companies that registered under International Ship Supplies Association (ISSA) while in Singapore has more than 50 ship supplier companies which if Thailand want to order these spare parts or machinery, it takes time and costly. Not only this amount is not enough for every vessels that enter to Thai ports and the potential of these 2 companies can not support every items which is the marine type that need to be used on board according to this catalogue (such as consumption goods, spare parts, medications, etc) but also about to achieve the International Marine Standard Type. And the last one is tax exemption, if we order any items in this catalogue, in Singapore; we don't need to pay for tax.

[37] Mr. Surasit Sommaluan (Chief Officer), Mr. Montra Yachan (Chief Engineer) and Mr. Tassana Suetorwong (Second Engineer); The Phulsawat Navy Co., LTD.

4.2 SWOT Analysis

SWOT analysis can be used to analyze the company itself and the over all market which mean it can be used to analyze both internal and external factor. In this case, it uses to analyze the internal and external factors about Thai maritime transport business and Thai merchant fleets, SWOT analyze will be used as these following;

<u>Internal factors concerned:</u>

4.2.1 Strengths-S

- Expert in feeder business and short route container service.
- Thai seafarers have lower wage rate which can compete in the lower fixed cost issue.
- Thai shipping company are more recognize and more familiar with Thai shipper.
- Nowadays, Thai shipping company provide more service in Cross Trade by using Small Handy Size Multipurpose (10,000-30,000 DWT)
- Thai container feeders have more chance to service river port in ASEAN and South Asian countries.
- Thai shipping company has the advantage in petroleum transportation as this market segment required small vessels in transportation.
- There is small size tanker service (less than 10,000 dead weight ton) provided by Thai shipping company which is suitable for short route transportation service, especially in the Indo-republic of China countries and the Southern part of the Republic of China).
- Thai shipping company provide Cross Trade service by container ships to the third country such as Australia-Singapore, South Asia-Singapore.

4.2.2 Weaknesses-W

- Most of Thai ship operators have the problem of insufficient fund.
- Lack of the long distance service route to our major trading partners like USA or European countries.
- [38]"Ineffective logistics and marketing networks" depth interview by Thai freight forwarder.

[38] Mrs. Pasima Chapakjanon (General Manager); BOPExpress Co.,LTD

- Maritime business in Thailand is not well-known as there is no publicity.
- There is no maritime R&D in Thailand.
- There is less advance technology in maritime operation in Thailand.
- Most of Thai seafarers don't know foreign language which is difficult to communicate to other international seafarers, crews or captain and may caused the damaging as they misunderstanding.

<u>External factors concerned</u>:

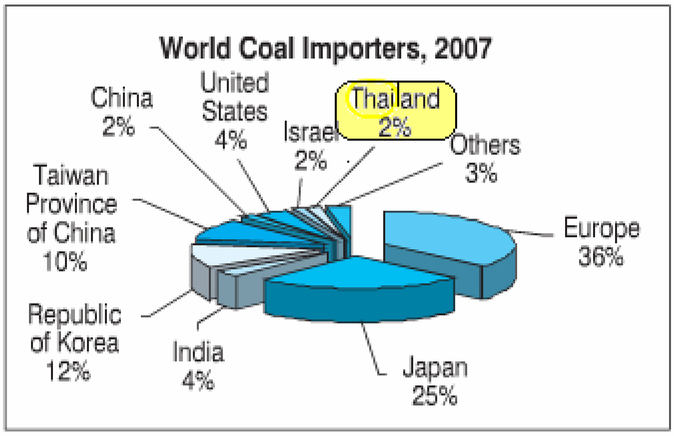
4.2.3 Opportunities-O

- Due to the global economic recovery which affects to the trend of Thailand international trade which is continually rising even it has a little effect from the political instability.
- [39] More Free trade area has been created such as CEPEA (Comprehensive Economic Partnership in East Asia, TAFTA (Thailand-Australia Free Trade Agreement), TNZCEP (Thailand-New Zealand Closer Economic Partnership), ASEAN-China Free Trade Agreement, Thailand-EU Free Trade Area, AJCEP (ASEAN-Japan Comprehensive Economic Partnership), etc. which is the good sign about the more international transportation.
- Thai government has motivated maritime industry by promoting many policies.
- There is an increasing in various kinds of demand in shipping service.
- Port in the Northern part of Republic of China such as Shanghai, Ningbo and Nanjing has the potential to increase the amount of import agricultural commodities from Thailand.
- Thailand's exporting bulk cargo like rice, corn, cement, sugar and rubber are all classified as Neo bulk which the amount in each shipment(5,000-20,000 ton/ship) is suitable for Thai fleet size.

[39] Thailand FTA

- The increasing demands in small handy size multipurpose ship transportation (10,000-30,000 dead weight ton), especially in Asia route service.
- According to this pie graph, we can see that Thailand is in the top world coal importers. Moreover, Thailand's largest coal miner like [40]Banpu also has a large quantity in export coal to China in each year. Therefore, it can be said that the coal market in Thailand is in the flourish period and its benefit to bulk transportation as well.

Figure 5 World Coal Importers, 2007



Source: UNCTAD secretariat on the basic of data supplied in Clarkson Research Services

4.2.4 Threats-T

- Insufficient maritime fund in Thailand.
- Some regulations are still out-of –date and substandard.
- Many exporters preferred the trade term that is not supported Thai vessel service.
- In Thailand still lack of national agency to gather maritime business into unity.
- Even the trend in economic growth has changed from the US and Europe to Asia, but the economic is still fragile.

[40] Data retrieved from Mining Exploration News, April 22nd, 2009. Data retrieved from: http://paguntaka.org/2009/04/22/thailand-coal-mining-company-banpu-plans-to-increase-coal-mine-export-to-china/

- In Thailand, there are only 2 banks that offer Maritime credit which are Kasikorn Bank (K-Bank) and Bank of Thailand that is still insufficient and not expert about maritime business.
- The main ports of Thailand which are Laem-chabang port and Klong-toey port are not located in the world transportation route, so few of ocean liner vessels are call these 2 ports.
- There are only main 4 deep sea port in Thailand which are Laem-chabang port, Mab-tapud port, Songkhlar deep sea port and Phuket deep sea port.
- In Thailand, there are only 8 shipyards which have the capacity to support the international ship length (LOA) (more than 100 meters). There are 7 shipyards located in Chao-praya river which has the constraints in many areas as follows;

1. Chao-praya river is limited by draft, LOA and channel, densely traffic which may easily caused the accident and it's far from the sea which is costly (pilot fees, bunker, etc.) and waste more time as it need to wait for the tide.
2. Shipyard caused more air pollution, marine pollution and noise pollution in Bangkok and Samutprakarn province which NGO try to force these 7 shipyards to move out from the city area.

Remarks: The last shipyard is located in Laem-chabang port named Unithai Shipyard & Engineering Co. Ltd.

4.3 Recommendations

1. Thai flag vessels should be rapidly develop in order to gain the benefit from Free Trade Area agreement as some ports will have the stricter survey to Thai flag vessels before enter their port due to most of Thai flags vessels has the exceed age than the particular port requirement and be in the blacklist of Tokyo-Mou which mean the longer survey in the port, the more costly. Therefore, most of the shippers preferred to use international flag vessels and even some Cargo reservation like rice or sugar which it should be shipped only by Thai flags vessel as the policy of Thai government but Thai flag vessels still substandard which make Thai government have to use the service from international fleets instead of Thai flag vessels(but need to permit by

Ministry's autograph first) in order to achieve the international standard and the Free Trade Area agreement will not benefit to Thai shipping companies and create the income to the countries that much like it suppose to be.

2. There should have more shipyards in Thailand and should not be along Chao-prayar river which has many constraints as I've mentioned and should not located near the city area like the present one so that it'll not create the air and noise pollution to the Bangkok; the capital city of Thailand which already affected by the air pollution from the increasing traffic density in the city area in each year.
3. As we know that Thailand geography is not suitable to have Out-port limited due to it has no break water like Singapore or others countries have, but it should be more convenient in the process of supply bunker in In-port limited about tax refund in order to motivate and facilitate more ocean vessels that enter to Laem-chabang port as Laem-chabang port is in the 21st World Port ranking, 2006 in term of container traffic.
4. Due to the Global economic crisis in the past 2 years gave the big impact to shipping business until nowadays. As in the 2007, the shipping business was flourishing, so there were many ships were built in that year, and then in 2008 the economic dramatically declined, so the ship price was sharply failed as there are over ship supply in the market and some ships are not even finished building. In my opinion, there are always chances in every crisis, Thailand economic didn't affected that much from the world economy crisis compared with US. or European countries, so if Thai government should assist Thai shipping business by adjusting some law to benefit more to Thai flag vessels, offer financial support if they want buy new ships so that it can decrease number of old vessels in Thailand which will achieve the international standard and not be in the blacklist soon.
5. Finally, it's announced by both Director of Macroeconomic Policy Bureau and Director-General of Fiscal Policy Office of Thailand about the increasing in the amount of import-export of Thailand. Therefore, there should be well-prepared in the development for Thai flag vessels in order to serve this demand which don't need to rely on the international fleets like in the past.

CHAPTER 5: CONCLUSION AND IMPLEMENT MEASURES AHEAD

As the previous 4 chapters have indicated the overall situation about Thai shipping industry, problems of Thai fleets by both pointing out the real problems that Thailand are facing with and comparing with Singapore fleet by using several methodologies. Therefore, I would like to give some recommendations and strategic planning in order to make clear about the scope of what actions should be done.

First of all, every project cannot be successful without enough budgets. So, both government sector and financial institution in Thailand should support maritime business by establishing maritime funds which offer low interest rate loan in order to reduce the burden in capital tie-up and facilitate the ship owners as they have to encounter with the nature of seaborne trade that it takes long period of time to pay back, high risk and low rate of return.

Then, some law should be amended in order to favor to every sectors in maritime industry and some new laws should be created as many Thai maritime laws has been forced for a long time and some points should be adjusted in order to follow the current situation of the industry and benefit to operate maritime business by covering everyone since the ship owner, cargo owners and the transporters.

Moreover, about the Thai fleets, there should be improved both the seafarers and the staffs ashore which should develop together between quantity and quality as the human resource is the main factor to be successful of every kind of businesses. To do so, first of all, there should be increased the number of Maritime University, College and Maritime Institute in order to improve the skill of sea endurance, skill in English and specific knowledge about the related technology that rapidly change nowadays.

Besides, there should be set up the national fleet to service international trade like Singapore, People’s Republic of China, Malaysia, etc. that it can be used as a tool to stimulate international seaborne trade, motivate foreign currency reserves, to create the job opportunity for Thai people and to increase the power of negotiation between Thai fleets and International fleets. So, to be participated in some main international convention like MARPOL (in all 5 annexes), SOLAS Protocol 78 and 88, etc. are necessary as it can increase the more credible for Thai flag vessel reputation, be welcome in the international port and not be in the blacklist anymore.

Furthermore, Thai government should increase the share of seaborne trade which carried by Thai flag vessels. As I've mentioned at the beginning of this thesis that more than 90% of Thai seaborne trade have to relied on international foreign shipping service while Thai shipping service which can achieve the international standard still lack of publicity. Besides, I've done the forecasting about the import-export value in the next 5 years which the result shown that Thailand economy will be in the bright future which is consistent with some Thai expertise's opinion and import-export amount in the first quarter which is continue raising . Therefore, Thai government should motivate the shippers to use more Thai fleets by using some new favorable measure to them like stimulate them to export their goods under CIF term and import under FOB terms, etc. Not only the shipping service that need to be concerned, ship operator also need to be improved as Thai ship operators should provide one stop service like Singapore does in order to create more value added service and to become the second leader in shipping industry in South East Asia in the near future.

The last one is, nowadays Thailand still has no Research and Development center about Maritime field which make Thailand need to rely on technology and know-how from foreign countries due to Thailand still be shortage in the Maritime specialists and proper research and technology. Therefore, there should be some Maritime agency to be in charge of Maritime R&D which will develop Thai shipping industry under Thai people's potentiality with the limitation resource.

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