Developing port marketing strategies: a case study for Bangkok Port, Thailand

Kanchisa Deerod

Follow this and additional works at: https://commons.wmu.se/all_dissertations

Part of the Management and Operations Commons, and the Transportation Commons

Recommended Citation
https://commons.wmu.se/all_dissertations/621

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.
DEVELOPING PORT MARKETING STRATEGIES
A CASE STUDY FOR BANGKOK PORT, THAILAND

By
KANCHISA DEEROD
Thailand

A Dissertation submitted to the World Maritime University in partial Fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE
in
MARITIME AFFAIRS
(PORT MANAGEMENT)

2018

Copyright Kanchisa Deerod, 2018
DECLARATION

I certify that all the material in this dissertation that is not my own work has 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) : KANCHISA DEEDEE

(Date) : 2018.09.18

Supervised by : Professor Dong-Wook Song

Supervisor’s affiliation: SML
ABSTRACT

Title of Dissertation: Developing Port Marketing Strategies: A Case Study for Bangkok Port, Thailand.

Degree: Master of Science (MSc)

Bangkok Port (BKP), the largest river port in Thailand, located on the left bank of the Chao Phraya River in Bangkok, the capital city of Thailand. The major role of BKP is to consolidate and distribute general cargo and containerized cargo between Laem Chabang Port and Bangkok Port. Looking at the present scenario, Bangkok Port has been challenged by the effect of globalization, the changes of shipping industry and the high competition from upcoming private ports. In this case, the importance of proper marketing strategies is recognized to help Bangkok Port to improve and develop its services in the right direction, not just to attract new customers, but to compete and survive in the competitive business.

The research aimed to develop port marketing strategies, as a case study of Bangkok Port (BKP) of Thailand. The study was carried out as a qualitative analysis with secondary data obtained from statistical reports of BKP, government reports, previous literatures, official websites of Port Authority of Thailand (PAT) and other data sources. The process of developing marketing strategies was based on an analytical framework which consists of 3 sub-parts such as: External and Internal Environmental Assessment, the STP Analysis and 7 Ps Marketing Mix. As per the analysis it was identified that the container vessel and barge operations have become the major business operation of BKP. Yet, considering the fact that the representation of feeder vessel operations is declining due to the deployment of larger vessels by shipping lines that cannot be called at BKP, barge operators are considered to be the target customer segment that BKP needs to focus in detail. As such, respective marketing strategies were discussed and developed in the light of assisting BKP for a sustainable future.

KEY WORDS: Marketing Strategy, SWOT, PESTEL, Five Forces Model, STP Analysis, 7 Ps Marketing Mix, Bangkok Port, Port Authority of Thailand.
Acknowledgement

I would like to express my deepest gratitude to the World Maritime University (WMU) for letting me fulfill my dream of being a student here and had the great opportunities to obtain knowledge and experiences in maritime field. Moreover, I also would like to express my special thanks of gratitude to have to Sasakawa Peace Foundation (Japan) for providing me with a scholarship and making it possible for me to enroll for the Master of Science (MSc) degree program.

Then, I would like to extend my sincere gratitude to my supervisor Prof. Dong-Wook Song for his guidance, assistance and motivation. Without his thoughtful encouragement and careful supervision, this dissertation would never have taken shape.

Moreover, I am highly indebted to the special members of the top management of my organization - Port Authority of Thailand (PAT). Lt. Mr. JG. Kamolsak Promprayoon, R.T.N. (Deputy Director General of Asset Management and Business Development), Mr. Somchai Hemthong (Director of Business Development and Marketing Department) and Mrs. Sasipat Nandigupta (Deputy Director of Business Development and Marketing Department) for putting their kind faith on me to participate for this study program. Further, I really appreciate the support of my senior colleagues for helping me to obtain all the required data for carrying out this dissertation.

Finally, I must express my very profound gratitude to my parents and my brother for providing me with unfailing support and continuous encouragement throughout my time of study and through the process of researching and writing this dissertation. The success and the achievements I made during my study at WMU would not have come true without their love and support.

Kanchisa Deerod
# TABLE OF CONTENTS

LIST OF TABLES ........................................................................................................................................ viii
LIST OF FIGURES ..................................................................................................................................... ix
LIST OF ABBREVIATIONS ......................................................................................................................... x

CHAPTER ONE INTRODUCTION ................................................................................................................. 1
  1.1 Background ......................................................................................................................................... 1
  1.2 Problem Identification ....................................................................................................................... 3
  1.3 Objective .......................................................................................................................................... 3
  1.4 Scope of the Study ............................................................................................................................. 3
  1.5 Dissertation Structure ...................................................................................................................... 4

CHAPTER TWO OVERVIEW OF THAILAND ECONOMY, LOGISTICS AND PORTS .................. 5
  2.1 Thailand Economy ........................................................................................................................... 5
    2.1.1 ASEAN-Economic Community (AEC) ....................................................................................... 6
    2.1.2 CLMV Countries ...................................................................................................................... 7
    2.1.3 The Trend of New Digital Economy .......................................................................................... 7
  2.2 Thailand Logistics ............................................................................................................................ 8
    2.2.1 Logistics Performance .............................................................................................................. 9
    2.2.2 Logistics and Transportation Policies ..................................................................................... 10
  2.3 Port Authority of Thailand .............................................................................................................. 11
    2.3.1 Ports Under Supervision ......................................................................................................... 11
    2.3.2 Future Directions and Projects .............................................................................................. 13
    2.3.3 Regulations and Standards .................................................................................................... 13
    2.3.4 Technologies and Systems ..................................................................................................... 14
  2.4 Bangkok Port ................................................................................................................................... 14
    2.4.1 Location and Area ................................................................................................................ 15
    2.4.2 Facilities and Infrastructure ................................................................................................ 15
    2.4.3 Services and Performance .................................................................................................. 19
    2.4.4 Future Projects .................................................................................................................... 22
    2.4.5 BKP’s Competitors ............................................................................................................. 23

CHAPTER THREE MARKETING STRATEGIES FOR PORTS .............................................................. 26
  3.1 Needs for Port Marketing Strategies .............................................................................................. 26
  3.2 Marketing Concepts ....................................................................................................................... 26
  3.3 Services Marketing ......................................................................................................................... 27
3.4 Developing Services Marketing Strategies ................................................................. 27
  3.4.1 PESTEL Analysis ................................................................................................. 28
  3.4.2 SWOT Analysis ................................................................................................. 28
  3.4.3 Five Forces Model ............................................................................................ 29
  3.4.4 STP Analysis ..................................................................................................... 30
  3.4.5 Seven (7) Ps Marketing Mix ............................................................................... 31

CHAPTER FOUR RESEARCH METHODOLOGY ................................................................. 33
  4.1 Research Approach .............................................................................................. 33
  4.2 An Analytical Framework .................................................................................... 33
    4.2.1 External and Internal Environment Assessments ............................................ 34
    4.2.2 STP Analysis .................................................................................................. 34
    4.2.3 Seven (7) Ps Marketing Mix ......................................................................... 35
  4.3 Data Issues ............................................................................................................ 35

CHAPTER FIVE ANALYSIS AND FINDINGS .................................................................... 36
  5.1. Customer Analysis ............................................................................................ 36
    5.1.1 Market Competitiveness ................................................................................. 36
    5.1.2 Customers’ Needs and Expectations .............................................................. 38
  5.2. Competitors Analysis ........................................................................................ 41
    5.2.1 Five Forces Model Analysis .......................................................................... 41
    5.2.2 Market Shares in the Competitive Market ..................................................... 44
  5.3. Company Analysis ............................................................................................. 46
    5.3.1 PESTEL Analysis for BKP’s Marketing Strategies ......................................... 46
    5.3.2 SWOT Analysis for BKP’s Marketing Strategies ........................................... 50
  5.4. STP Analysis ..................................................................................................... 52
    5.4.1 Customers Segmentation for BKP ................................................................. 52
    5.4.2 Target Market Strategies for BKP ................................................................. 53
    5.4.3 Positioning Strategies for BKP ..................................................................... 54
  5.5. Seven (7) Ps Marketing Mix Strategies for BKP ................................................ 55
    5.5.1 Service Strategy ............................................................................................ 55
    5.5.2 Price Strategy ............................................................................................... 56
    5.5.3 Place Strategy ............................................................................................... 56
    5.5.4 Promotion Strategy ....................................................................................... 56
    5.5.5 People Strategy ............................................................................................. 56
    5.5.6 Process Strategy ........................................................................................... 57
LIST OF TABLES

Table 2:1 - International cargo usage by mode of transportation ......................... 8
Table 2:2 - Domestic Cargo Transportation and Domestic Transport Cost 2015-2016....... 9
Table 2:3 - Facilities for vessels at ‘The West Quay’.............................................. 16
Table 2:4 - Facilities for Cargo at ‘The West Quay’ .............................................. 16
Table 2:5 - Container Service and Facilities at ‘The East Quay’ ............................ 17
Table 2:6 - The Mechanical Equipment for BKP’s Operation .............................. 18
Table 2:7 - Service Craft’s Facilities ................................................................. 18
Table 2:8 - Number of vessel calls 2013-2017 ...................................................... 19
Table 2:9 - The growth rate of vessels services by types of vessel in 2017 ............... 20
Table 2:10 - Container throughput of BKP between 2013-2017 ............................ 21
Table 2:11 - General cargo volume of BKP between 2013-2017 ........................... 21
Table 2:12 – Cargo Volume by Type of Warehouse Services between 2013-2017.. 22
Table 2:13 - Container Throughput and General Cargo Volume of BKP’s competitors.... 25
Table 5:1 –Shipping Lines’ Needs and Expectations ............................................ 39
Table 5:2 - Warehouse Customers’ Needs and Expectations ............................... 40
Table 5:3 - SWOT Analysis for BKP’s Marketing Strategies .................................. 50
Table 5:4 - Customer Segmentation of BKP ......................................................... 53
Table 5:5 - Target Customer of BKP ........................................................................ 54
LIST OF FIGURES

Figure 1:1 – Dissertation Structure .......................................................................................... 4
Figure 2:1 - Thailand GDP Growth Rate (% per year) .............................................................. 5
Figure 2:2 - Map of ASEAN Member’s Countries ................................................................. 6
Figure 2:3 - LPI Score and Rank of Thailand .......................................................................... 10
Figure 2:4 - Map of PAT’s Five Main Ports .......................................................................... 11
Figure 2:5 - Bangkok Port Layout ........................................................................................ 15
Figure 4:1 - Analytical Framework ....................................................................................... 33
Figure 5:1 - Summary of Vessel Calls at BKP 2013-2017 .................................................... 37
Figure 5:2 - Total Container Throughputs of BKP 2013-2017 Error! Bookmark not defined. 37
Figure 5:3 - The Warehouse Service Volume of BKP 2014-2017 ........................................ 38
Figure 5:4 - BKP’s Five Force Model Analysis ..................................................................... 41
Figure 5:5 - Market Share of Container Throughput 2017 .................................................. 44
Figure 5:6 - Market Share of General Cargo Volume 2017 ................................................ 45
Figure 5:7 - PESTEL Analysis of BKP’s Marketing Strategies .............................................. 46
Figure 5:8 - BKP’s Positioning in the Market ....................................................................... 55
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC</td>
<td>ASEAN Economics Community</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of South East Asian Nations</td>
</tr>
<tr>
<td>BKP</td>
<td>Bangkok Port</td>
</tr>
<tr>
<td>CFS</td>
<td>Container Freight Station</td>
</tr>
<tr>
<td>CLMV</td>
<td>Asian sub-grouping (Cambodia, Laos, Myanmar and Vietnam)</td>
</tr>
<tr>
<td>CY</td>
<td>Container Yard</td>
</tr>
<tr>
<td>DGP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
</tr>
<tr>
<td>ISPS</td>
<td>The International Ship &amp; Port Facility Security</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
</tr>
<tr>
<td>ICD</td>
<td>Inland Container Depot</td>
</tr>
<tr>
<td>LCP</td>
<td>Laem Chabang Port</td>
</tr>
<tr>
<td>LPI</td>
<td>Logistics Performance Index</td>
</tr>
<tr>
<td>PAT</td>
<td>Port Authority of Thailand</td>
</tr>
<tr>
<td>PCCT</td>
<td>Pu Chao Container Terminal Co., LTD.</td>
</tr>
<tr>
<td>PESTEL</td>
<td>Political/Economic/Social/Technology/Environment/Legal</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PSHEM</td>
<td>Port Safety, Health and Environmental Management</td>
</tr>
<tr>
<td>SSW</td>
<td>Suksawat Terminal Co., LTD.</td>
</tr>
<tr>
<td>STP</td>
<td>Segmentation, Targeting and Positioning</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths/Weaknesses/Opportunities/Threats</td>
</tr>
<tr>
<td>TEUs</td>
<td>Twenty Equivalent Units</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

1.1 Background

Thailand is geographically located in South East Asian region, surrounded by 4 countries namely as Burma, Cambodia, Malaysia and Laos, where the country’s total area of the land is 513,115 square kilometers. It has a strategic advantage due to its large hinterland bordered by the Andaman Sea and Gulf of Thailand. According to United Nations Convention on the Law of the Sea (1982), Thailand has a maritime zone around 350,000 square kilometers which accounts for about 60% compared to the size of land territory (DMCR, 2014).

However, after Second World War, Thailand developed its economy by depending on agricultural and industrial products. Then, Thai Government started to recognize the potential of enhancing import and export activities with international markets, thus decided to modernize and develop maritime sector in par with the growth of international trade by enhancing capacities of its ports to accommodate international vessels to take advantage of situations. The Government choose a location in the central of Bangkok city along the left bank of Chao Phraya river. As such, in 1954 the Government established Port Authority of Thailand as a state enterprise under the Ministry of Transport to operate ‘Bangkok Port (BKP)’. At that time BKP was considered as the first international port of Thailand for general and bulk cargo vessel operations.

After that, Bangkok Port was developed and grown together with the developments of Thailand’s economy over the past decades. However, BKP faced major changes of trends in shipping industry in 1977 with the effects of containerization along with increasing consumer demands as a result of economic growth. BKP expanded the land at the West Quay to develop a container terminal, specially to cater the developments of industrial and community resources in the surrounding area. Then new challenges came up as shipping industry started deploying larger vessels and BKP could not
accommodate those vessels while the congestion of trucks increased in capital city due to fast growing economic activities. These became major reasons for the government to decide to construct Laem Chabang Port (LCP) at Chon Buri province in the gulf of Thailand which is 200 km. far from Bangkok. Its operations started in 1991 where LCP became the main international deep seaport of Thailand. With its dramatic growth LCP became the gateway of Thailand and currently it is controlled under a concession contract for 30 years with the global terminal operator Hutchison group.

After LCP started its operations, the Government put limitations on container handling quota at BKP for 1 million TEUs per year in order to reduce the traffic problems in Bangkok and to encourage the ships to use more services at Laem Chabang Port. Although BKP is not seen as a modern and a larger port anymore, it still plays an important role as a consolidation and distribution port from/to Bangkok and with other parts of country while linking with LCP to enhance the logistic competitiveness of the country.

However, now BKP is going to face its next challenge due to high competition from the upcoming private terminal operators along the Chao Phraya River, where BKP is not going to be operated in a monopoly market any longer. In that case, in order to maintain the leadership position in the market and retain the sustainability of the organization, BKP must change its strategic plans and improve the competitiveness in the market. That is cannot be achieved only by enhancing the efficiency of services, but also paying more attention to understand the changing requirements of customers. In this case, a good strategic master plan supported with a good marketing plan is identified to be crucial in order to increase the competitiveness of BKP in resent and future competitive markets.
1.2 Problem Identification

As a state-owned port under PAT, BKP was considered to be a public service port operating in a monopoly market. However, considering the threats from Private sector ports becoming bigger and stronger, PAT needed to develop strategies for marketing BKP for industrial customers while internally changing the structure of the organization from ‘Business Development and Assets Management’ to ‘Business Development and Marketing Department’ in 2017. However, looking deeply, it was observed that the strategies of BKP are still not focusing on real threats and needs of the organization, thus in reality it has not been able to get results from its implemented marketing functions. In that sense, this research study attempts to find out that ways to encourage BKP to use proper marketing activities to enhance its competitiveness in the market with a real focus on the problem on hand. In simple terms, it can be said that BKP needs a thoroughly studied and well-structured marketing strategy to compete and survive in the market.

1.3 Objective

The main objective of the research study is to develop marketing strategies for Bangkok Port. Therefore, attention is put on to understand the capabilities, external and internal influential factors, the current marketing situations, the key business units, the key customers and the current marketing position of BKP. Most importantly, real market needs are expected to be identified for developing marketing strategies to strengthen the BKP’s competitiveness to ensure its sustainability in competitive and dynamic environments.

1.4 Scope of the Study

BKP is one of the key ports under the control of Port Authority of Thailand. Here, this study focuses on developing marketing strategies for BKP in order to strengthen the marketing position of BKP. Port operational data from secondary data sources of last 4 years since 2014 are considered for analysis. The study is being carried out under the capacity of a Master’s Student with limited resources and limited time frame.
1.5 Dissertation Structure

The research paper is structured under 7 chapters. Chapter One is an introduction and background of study where it discusses the background of the research scenario while highlighting the research problems along with its objectives. Then Chapter Two and Chapter Three - mainly describes the overview of Thailand’s industrial developments and conceptual theories about marketing strategy and how to implement those theories to port in specific scenarios by examining the existing researches and theories under the scope of the study. Chapter Four illustrates the research framework and methodology by discussing how the research study is being carried out with the collected data from relevant data sources. Chapter Five illustrates the collected data and conduct the analysis to achieve the objectives of the study while Chapter Six provides discussions and recommendation in the light of providing appropriate marketing strategies for Bangkok Port. Chapter Seven concludes the study presenting the overall picture of this work, its contribution, limitations and suggestions for future studies.

![Diagram of dissertation structure]

Figure 1:1 – Dissertation Structure
CHAPTER TWO
OVERVIEW OF THAILAND ECONOMY, LOGISTICS AND PORTS

2.1 Thailand Economy

Thailand is having the second largest area and population among ASEAN countries where the scale of economy is second only to Indonesia in Southeast Asian region (ADB, 2018). The Gross Domestic Product (GDP) was recorded as US$455 billion in 2017. Considering the GDP growth rate from 2015 to 2017, the overall range has shown a continuous growth of 3.0%, 3.3%, and 3.9%, respectively, and it is forecasted that GDP growth will be accelerated up to 4.0% in 2018 and 4.1% in 2019 (World Bank, 2018). This trend is expected be seen due to higher domestic consumption along with the increasing demand for foreign products and increasing imports and exports transactions. (NESBD, 2018)

![Figure 2:1 - Thailand GDP Growth Rate (% per year)](source: ASEAN Development Bank)

International trade played very important role of the economy of Thailand in the year 2017 which showed an international market share of 140 percent. Exports represents an important part of the country's economy where Thailand is the 26th largest export destination for the United States. (ITA, 2018). Focus on the development of logistics, trade and services. And the competitiveness of the logistics industry is an important factor in supporting and driving international trade for continued growth (World Bank, 2018).
2.1.1 ASEAN-Economic Community (AEC)

ASEAN Community was established in 1967 with 10 countries member namely as; Brunei Darussalam, Cambodia, Laos, Indonesia, Malaysia, Myanmar, Philippines, Thailand and Vietnam (ASEAN, 2008).

As described by Association of Southeast Asian Nations (2008), ASEAN Community Councils is comprised of three pillars which are;

- Composition of the ASEAN Political-Security Community Council
- Composition of the ASEAN Socio-Cultural Community Council
- Composition of the ASEAN Economic Community Council (AEC)

It is important to highlight that one of the three pillars that mostly impact to the GDP of the country is ASEAN Economic Community (AEC). After implemented in 2015, AEC was ranked as the third largest economy in Asia and ranked the seventh largest in the world and accounted for 14% of world container throughput (UNCTAD, 2017a). When focusing in Thailand, its strategically located in the heart of ASEAN countries support Thailand to become a hub for logistics, transportation and communications within the region (ADB, 2013). AEC expands market size within Thailand to ASEAN.
market which is around 622 million people. Moreover, Thailand's exports volume to ASEAN is 1.75 trillion baht in 2017 which can be considered as 19.2% of total Thailand trade volume (BOI, 2015).

2.1.2 CLMV Countries

CLMV stands for the Capital letters from the name of four countries which are Cambodia, Lao PDR, Myanmar, and Vietnam which are the member in ASEAN community but because the fundamental economic and infrastructure are still considered as less develop countries (OECD, 2018). Currently, CLMV countries caught a lot of attention from potential investors because the economic growth and demand of product will be growing more in the future in order to developing those countries (ESCAP, 2015). When considering GDP of this CLMV countries in 2015, Myanmar has a GDP growth rate of 7.8 percent, Cambodia 7.3 percent, Laos 7.2 percent, and Vietnam 5.7 percent. Moreover, CLMV countries are ranked as 15 fastest growing economies in the world in the next 10 years (AIT, 2018). These are the opportunities for Thailand to become the manufacturing base and distribution center of cargo for CLMV countries.

2.1.3 The Trend of New Digital Economy

The digital economy can be defined as the economy that is based on digital technologies or conducting business through markets based on the internet (OECD, 2017). Moreover, the digital economy can be categorized into 5 groups as 1) advanced manufacturing, robotics and factory automation, 2) new sources of data from mobile and ubiquitous Internet connectivity, 3) cloud computing, 4) big data analytics, and 5) artificial intelligence (UNCTAD, 2017b). Nowadays, Digital economy has a lot influence on people’s lifestyles and the way to do the business. As estimated by World Bank (2017) that digital economy is now worth US$ 11.5 trillion globally which equivalent to 15.5% of global GDP.
For this reason, Thai Government want to emphasis the significance of the digital economy by developed ‘The National Digital Economy Masterplan’ which is the long term plan for 20 years. Moreover, the Government introduced “Thailand 4.0” economic model, which focuses on digital improvements to enhance the quality of life and promotes productivity and efficiency of Thai businesses at the same time (MDES, 2013). The Government encourages people to invest in E-commerce, digital content and hard and soft skills are also being keenly promoted. Moreover, the total value of the e-commerce market in Thailand grew by 12.42 per cent, from US$64 billion to $72 billion in 2015-2016 (BOI, 2017). Furthermore, Thailand aims to become the digital hub of Southeast Asia within next 10 years.

2.2 Thailand Logistics

Thailand has the strategic location with the great capability as regional manufacturing powerhouse respond to a large amount of cross boarder demand and ASEAN trade (NESDB, 2016) because of the presence of multimodal transport networks and the development of logistics and supply chain management. Here, the proportion of transport modes of international and domestic cargo in Thailand can be illustrated as;

<table>
<thead>
<tr>
<th>Transport Mode</th>
<th>2013 Inbound (%)</th>
<th>2013 Outbound (%)</th>
<th>2014 Inbound (%)</th>
<th>2014 Outbound (%)</th>
<th>2015 Inbound (%)</th>
<th>2015 Outbound (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>87.04</td>
<td>87.04</td>
<td>87.81</td>
<td>87.81</td>
<td>85.64</td>
<td>85.64</td>
</tr>
<tr>
<td>Road</td>
<td>12.67</td>
<td>12.67</td>
<td>11.92</td>
<td>11.92</td>
<td>14.09</td>
<td>14.09</td>
</tr>
<tr>
<td>Air</td>
<td>0.28</td>
<td>0.28</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Rail</td>
<td>0.01</td>
<td>0.01</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Ministry of Transport, Thailand

Table (2:1) shows that the main transportation mode for international cargo is waterway by 87.04% followed by road, air, and rail respectively. Moreover, the cost of waterway transportation is very cost effective when compare to others.
Table 2:2 - Domestic Cargo Transportation and Domestic Transport Cost 2015-2016

<table>
<thead>
<tr>
<th>Transport Mode</th>
<th>2015</th>
<th>2016</th>
<th>Transportation Cost (Bath/Tons/Km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>81.20%</td>
<td>80.86%</td>
<td>2.12</td>
</tr>
<tr>
<td>Inland waterway</td>
<td>8.75%</td>
<td>8.53%</td>
<td>0.65</td>
</tr>
<tr>
<td>Coastal</td>
<td>8.15%</td>
<td>8.70%</td>
<td></td>
</tr>
<tr>
<td>Rail</td>
<td>1.89%</td>
<td>1.90%</td>
<td>0.95</td>
</tr>
<tr>
<td>Air</td>
<td>0.01%</td>
<td>0.01%</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Ministry of Transport, Thailand

Table 2:2 shows that the main transportation mode for domestic cargo is road by 80.86% in 2016 followed by coastal service, inland waterway, rail and Air respectively. It can be seen that Thailand's logistics system for domestic cargo mostly relies on road transportation, this is the reason that the cost of logistics in Thailand is quite high.

2.2.1 Logistics Performance

Regarding World Bank has developed an international logistics assessment tools, called ‘Logistics Performance Index (LPI)’. The objectives of this index is to evaluate logistics activities of particular country in 6 aspects which are 1)The efficiency of customs and border management clearance 2)the quality of trade and transport infrastructure 3)the ease of arranging competitively priced shipments 4)logistics competency 5)the ability to track and trace 6)timeliness (World Bank, 2015).
Figure (2:3) shows Thailand LPI score and ranking in 2007, 2010, 2012, 2014 and 2018. Currently, Thailand scored 3.41 at the 32th rank out of 160 countries. The score and rank increases from 2.26 in 2016.

### 2.2.2 Logistics and Transportation Policies

‘The 20-year strategic plan’ was established by Ministry of Commerce which aims to be as a long term strategic plan for Thailand. The strategic goals are to provide Thailand with stability, prosperity, and sustainable development in accordance with the philosophy of sufficiency economy (NESDB, 2017). However, under the long term national strategic plan there is ‘National Economic and Social Development Plan No.12 (2017-2021)’. Further, in order to focusing more on logistics policies, Ministry of Transportation of Thailand has developed ‘Thailand's Logistics Development Strategy No. 3 (2017-2021)’ to serve as a framework for policy and strategy development of the logistics system of the country effectively, in order to "Raise the level of logistics in the country and enhancing competitiveness of Thailand in ASEAN Trade” (BOI, 2016).
2.3 Port Authority of Thailand

Port Authority of Thailand (PAT) is a state-owned Enterprise under the Ministry of Transport. It was established in accordance with the Port Authority of Thailand Act. A.D. 1951 (PAT, 2011a). Currently, PAT performed its mission and strategies under the 11th State Enterprise Plan (fiscal year 2015 - 2019). Nowadays, PAT determine to meet its visions as “To be the hub of waterway transport and logistics linking the Thai economy to ASEAN” (PAT, 2011b).

2.3.1 Ports under supervision

![Figure 2:4 - Map of PAT’s Five Main Ports](image)

Figure (2:4) shows the map of five ports in Thailand that are under the supervision of PAT namely as; Bangkok Port, Laem Chabang Port, Chiang Sean Commercial Port, Chiang Khong Port, and Ranong Port. Here, the brief overview of each port can be presented as follow (PAT, 2016);
2.3.1.1 **Bangkok Port**: the international river port locates at the center of the capital city, Bangkok, along the left side bank of Chao Phraya River. It is operated by Bangkok Port Division. Its visions to become “Toward the excellence of waterway transportation, sustainable environment and connectivity Thailand economy with ASEAN”

2.3.1.2 **Laem Chabang Port**: the international deep seaport located on Chon Buri province along the Gulf of Thailand. It is operated under the 30 years’ concession contract with Hutchison Company under PAT’s vision to became “Multimodal transport hub and Logistics hub of ASEAN”

2.3.1.3 **Chiang Sean Commercial Port and Chiang Khong Port**: the river port located on Chiang Rai province in the Northern Part of Thailand, along the Mekong River. It is operated by Regional Port Division with its visions to become “the hub of cargo transportation in the Northern Part of the country with the international standard”

2.3.1.4 **Ranong Port**: the river port located on the Ranong province in the southern part of Thailand, along Kraburi River. It is operated by Regional Port Division with its visions to become “The gateway to Andaman Sea and connect with the neighboring countries”

It is important to highlight that Laem Cha bang Port is the biggest international seaport located in the Upper Gulf of Thailand. Furthermore, Bangkok Port, the most important big river port located in the river bank of Chao Phraya river in the central of capital city of Thailand (PAT, 2011a).
2.3.2 Future Directions and Projects

PAT act as an integral part of the Thailand waterway transportation system by perform mission in compliance with government policy including increase the country’s economic potential, reduce the country’s logistics’ costs, develop transportation and logistics connectivity within ASEAN and sub-region that enhance commercial advantages and competitiveness of the PAT’s organization and the country (UNESCAP, 2015). In the future directions and projects, PAT will accelerate the development in the following projects (PAT, 2016);

- Expanding LCP phase 3 (2020 - 2036)
- Single Rail Transfer Operator (SRTO) at LCP
- A coastal terminal at LCP linking with ‘20G coastal terminal’ at BKP (2018)
- Dry Port Business Development Project (2020 - 2022)
- Providing more value added at BKP such as One Stop Service Center (2020 - 2022) and Warehouse Development Project with the mechanical handling equipment management system (Inbound CFS) (2018 - 2020)

2.3.3 Regulations and Standards

PAT as the state-owned enterprise has been pressuring from both public interest and private interest. Nowadays, there are a lot of laws, regulations, and standards toward port’s operation which are (PAT, 2017a);

- Port Authority of Thailand Act
- Port Safety, Health and Environmental Management Code (PSHEM Code)
- Private Equity Investment Governmental Affairs Act (2013)
- Purchase of the State Procurement Act (2017)
- The Constitution of the Kingdom of Thailand with protection and corruption
- Official Information Act (1997)
- Act on Offenses about Computer (2007)
- international standard such as ISPS CODE, PSHE-MS, ISO 27001, ISO 20000, ISO 22301.

2.3.4 Technologies and Systems.


2.4 Bangkok Port

Bangkok Port (BKP) was established in 1954 as the first international port of Thailand, but nowadays BKP changes its role to be the biggest river port in Chao Phraya River and the second largest port in Thailand after LCP (PAT, 2011a). However, BKP still has the important role in Thailand waterway transport as the consolidation and distribution port for cargo in Bangkok and industrial zone in the central part of the country. At present, BKP is operated by Bangkok Port Division under the supervision of PAT, this means that BKP can be identified as a state-owned enterprise port operator (BKP, 2006a).
2.4.1 Location and Area

BKP is located on the left side bank of the Chao Phraya River between km.+26.5 and km.+28.5, at Klongtoey District, Bangkok. The total inland area is 960.65 acres but when considering particular operation area inside customs fence is around 400.12 acres. Moreover, Cargo operational area can be divided into 2 main areas firstly, ‘The west quay’; for accommodating 7 Conventional Berths, 2 Domestic Coastal Berths, 1 Tourist Boat Berth. Secondly, ‘The east quay’ for accommodating container Terminal Division 1 (4 Berths), Container Terminal Division 2 (3 Berths) and 1 Domestic Coastal Berth (PAT, 2016).

![Figure 2:5 - Bangkok Port Layout](Source: STC Thailand, 2016)

2.4.2 Facilities and Infrastructure

It is well connected with road and rail systems, which help transport of cargoes between the port and its hinterland fast and economical. (BKP, 2018) The depth of the river within the port area varies from 8.5 meters to 11 meters below. However, Facilities and infrastructure of BKP can be divided into 2 group based on the quay sides (BKP, 2006b).
- **The West Quay**

  The West Quay has total area at 226.81 acres is the area used for general container cargo and international/domestic berths.

  **Table 2:3 - Facilities for vessels at ‘The West Quay’**

<table>
<thead>
<tr>
<th>Berth / Dolphin/Buoy</th>
<th>Length (m.)</th>
<th>Number of Berths</th>
<th>Size of Vessel Length/Draught (m.)</th>
<th>Capacity (Ship)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Berth (228-H)</td>
<td>1,179</td>
<td>7</td>
<td>172.25/8.23</td>
<td>7</td>
</tr>
<tr>
<td>Domestic Coastal Berth (22I-22J)</td>
<td>348</td>
<td>2</td>
<td>172.25/6.23</td>
<td>2</td>
</tr>
<tr>
<td>Tourist Boat Berth (22A)</td>
<td>133</td>
<td>1</td>
<td>172.25/8.23</td>
<td>1</td>
</tr>
<tr>
<td>Klungtoey Midstream Dolphin</td>
<td>1,360</td>
<td>34</td>
<td>172.25/8.23/1.23</td>
<td>6</td>
</tr>
<tr>
<td>Ban Huasur Midstream Dolphin</td>
<td>1,600</td>
<td>24</td>
<td>172.25/8.23</td>
<td>7</td>
</tr>
<tr>
<td>Sathupradit Buoy</td>
<td>1,580</td>
<td>5</td>
<td>137.19/7.62</td>
<td>4</td>
</tr>
</tbody>
</table>

  Source: PAT, 2016

  **Table 2:4 - Facilities for Cargo at ‘the West Quay’**

<table>
<thead>
<tr>
<th>Area</th>
<th>Transit Shed</th>
<th>Container Yard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Sheds (1-2)</td>
<td>Inside (sq.m.)</td>
<td>7,200</td>
</tr>
<tr>
<td>Transit Sheds (3-6)</td>
<td>Outside (sq.m.)</td>
<td>2,400</td>
</tr>
<tr>
<td>Transit Sheds (9,11,13,15-17)</td>
<td>Platform (sq.m.)</td>
<td>5,280</td>
</tr>
<tr>
<td>Outbound Container</td>
<td></td>
<td>6,380</td>
</tr>
<tr>
<td>Open Yard for Stuffing (Former)</td>
<td></td>
<td>107,200</td>
</tr>
<tr>
<td>Open Yard for Stuffing (45 ras)</td>
<td></td>
<td>72,000</td>
</tr>
<tr>
<td>Empty Container Yard C-Marshalling Yard</td>
<td></td>
<td>61,998</td>
</tr>
<tr>
<td>Integrated Container Depot (Koh Lao Area)</td>
<td></td>
<td>65,650</td>
</tr>
<tr>
<td>In-transit Warehouse</td>
<td></td>
<td>7,800</td>
</tr>
<tr>
<td>Bonded Warehouse (Red Bldg.)</td>
<td></td>
<td>6,434</td>
</tr>
<tr>
<td>Bonded Warehouse (New Bldg.)</td>
<td></td>
<td>3,120</td>
</tr>
<tr>
<td>Warehouse (Overtime Cargo)</td>
<td></td>
<td>8,955</td>
</tr>
<tr>
<td>Vehicle Warehouse</td>
<td></td>
<td>1,890</td>
</tr>
<tr>
<td>Dangerous Cargo Warehouse</td>
<td></td>
<td>1,200</td>
</tr>
<tr>
<td>Jute,Cotton,Kapok Cargo Unit</td>
<td></td>
<td>6,400</td>
</tr>
</tbody>
</table>

  Source: PAT, 2016
The East Quay

The East Quay has a total area of 132.4 acres. This quay focuses on containerized cargo and container vessels service. The container operation is divided into 2 sections which are Container Terminal Division 1 and 2.

Table 2.5 - Container Service and Facilities at ‘The East Quay’

<table>
<thead>
<tr>
<th>Container Terminal Division 1</th>
<th>Container Terminal Division 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Berths</td>
<td>No. of Berths</td>
</tr>
<tr>
<td>20A</td>
<td>20D</td>
</tr>
<tr>
<td>162</td>
<td>183</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>20A8</td>
<td>20E</td>
</tr>
<tr>
<td>183</td>
<td>183</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>20B</td>
<td>20F</td>
</tr>
<tr>
<td>183</td>
<td>183</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>20C</td>
<td>20G</td>
</tr>
<tr>
<td>183</td>
<td>91.5</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Overall Length</td>
<td>Overall Length</td>
</tr>
<tr>
<td>680</td>
<td>640.50</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Water Depth</td>
<td>Water Depth</td>
</tr>
<tr>
<td>8.23</td>
<td>8.23</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Accommodation</td>
</tr>
<tr>
<td>10,000 - 12,000 DWT</td>
<td>10,000 - 12,000 DWT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Container Yard &amp; Gate</th>
<th>Container Yard &amp; Gate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marshalling Yard</td>
<td>Marshalling Yard</td>
</tr>
<tr>
<td>98,600 Sq.m</td>
<td>49,000 Sq.m</td>
</tr>
<tr>
<td>Stacking Capabilities</td>
<td>Stacking Capabilities</td>
</tr>
<tr>
<td>3,024 Ground Slots</td>
<td>1,372 Ground Slots</td>
</tr>
<tr>
<td>Ground Slots Block A, B, C and D</td>
<td>8,380 T.E.U.</td>
</tr>
<tr>
<td>Reeler Plugs</td>
<td>Reeler Plugs</td>
</tr>
<tr>
<td>460 Units</td>
<td>324 Units</td>
</tr>
<tr>
<td>Sub Gate In</td>
<td>Sub Gate In</td>
</tr>
<tr>
<td>5 Units</td>
<td>4 Units</td>
</tr>
<tr>
<td>Water Depth</td>
<td>Water Depth</td>
</tr>
<tr>
<td>8.23 M</td>
<td>8.23 M</td>
</tr>
<tr>
<td>Sub Gate Out</td>
<td>Sub Gate Out</td>
</tr>
<tr>
<td>3 Units</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Staff: 324 Persons</td>
<td>No. of Staff: 261 Persons</td>
</tr>
<tr>
<td>Service Hours: 24 hours a day, 7 days/week</td>
<td>Service Hours: 24 hours a day, 7 days/week</td>
</tr>
<tr>
<td>In-house Customs Clearance</td>
<td>In-house Customs Clearance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Handling Equipment</th>
<th>Handling Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Mounted Shoreside</td>
<td>Rail Mounted Shoreside</td>
</tr>
<tr>
<td>8 Units</td>
<td>6 Units</td>
</tr>
<tr>
<td>Gantry Crane 40 tonnes</td>
<td>Gantry Crane 40 tonnes</td>
</tr>
<tr>
<td>Rubber Tyred Gantry Crane</td>
<td>Rubber Tyred Gantry Crane</td>
</tr>
<tr>
<td>23 Units</td>
<td>15 Units</td>
</tr>
<tr>
<td>4 Plus 1 - 1 Over 3 (35 tonnes)</td>
<td>12 Units</td>
</tr>
<tr>
<td>4 Plus 1 - 1 Over 4 (35 tonnes)</td>
<td>11 Units</td>
</tr>
<tr>
<td>Tractor for Container</td>
<td>Tractor for Container</td>
</tr>
<tr>
<td>62 Units</td>
<td>46 Units</td>
</tr>
<tr>
<td>Container Chassis</td>
<td>Container Chassis</td>
</tr>
<tr>
<td>62 Units</td>
<td>46 Units</td>
</tr>
</tbody>
</table>

Source: PAT, 2016
Table 2:6 - The Mechanical Equipment for BKP’s Operation

<table>
<thead>
<tr>
<th>Item</th>
<th>Capacity (Metric Tonnes)</th>
<th>Quantity (Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Loader</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td>Empty Container Reach Stacker</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Mobile Crane</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Mobile Crane</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>Tractor for Container</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>Container Chassis</td>
<td>40 - 45</td>
<td>34</td>
</tr>
<tr>
<td>Forklift</td>
<td>2.5 - 25</td>
<td>238</td>
</tr>
<tr>
<td>Motor Truck</td>
<td>5 - 7</td>
<td>40</td>
</tr>
<tr>
<td>Multi-tractor</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Multi-Container Chassis</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Chassis Truck (Semi-Trailer Bed Slope)</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Container Chassis</td>
<td>45</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: PAT, 2016

Table 2:7 - Service Craft’s Facilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Capacity</th>
<th>Quantity (Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trailing Suction Hopper Dredger</td>
<td>2,500 cubic metres</td>
<td>3</td>
</tr>
<tr>
<td>Dredger</td>
<td>200.47-429 metric tonnes</td>
<td>3</td>
</tr>
<tr>
<td>Hopper Barge</td>
<td>120 cubic metres</td>
<td>7</td>
</tr>
<tr>
<td>Coastal Tug</td>
<td>200-350 hp</td>
<td>4</td>
</tr>
<tr>
<td>Buoy Tender</td>
<td>593 gross tonnage</td>
<td>1</td>
</tr>
<tr>
<td>Survey Boat</td>
<td>194.37-250 metric tonnes</td>
<td>3</td>
</tr>
<tr>
<td>Rong Kam Boat (Boat for supporting marine activities)</td>
<td>150-240 hp</td>
<td>2</td>
</tr>
<tr>
<td>Water Service Boat</td>
<td>140 tonnes</td>
<td>1</td>
</tr>
<tr>
<td>Workshop Boat</td>
<td>15-18 metric tonnes</td>
<td>2</td>
</tr>
<tr>
<td>Oil service Boat</td>
<td>21.5 metric tonnes</td>
<td>1</td>
</tr>
<tr>
<td>Tarua 102 Tug Boat</td>
<td>420 hp</td>
<td>1</td>
</tr>
<tr>
<td>Tarua 109 Tug Boat</td>
<td>270 hp</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: PAT, 2016
2.4.3 Services and Performance

Main services of BKP can be identified into 2 groups as follow (PAT, 2018);

2.4.3.1 Vessel Services for different type of vessels which can categorizes by the type of ship which are (PAT, 2017b):

- Container Vessels; because BKP is a river port, so it can accommodate up to 8.2 meters deep. Therefore, the type of container vessel cannot be bigger than feeder vessels and barges.
- General Cargo vessels
- Passenger Vessels
- Naval vessels
- Other Vessels

Table 2:8 - Number of vessel calls 2013-2017

<table>
<thead>
<tr>
<th>Type of Vessels</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Vessels</td>
<td>2,809</td>
<td>2,709</td>
<td>2,781</td>
<td>2,628</td>
<td>2,584</td>
</tr>
<tr>
<td>General Cargo Vessels</td>
<td>501</td>
<td>449</td>
<td>457</td>
<td>426</td>
<td>362</td>
</tr>
<tr>
<td>Passenger Vessels</td>
<td>22</td>
<td>24</td>
<td>12</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Naval Vessels</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>16</td>
<td>7</td>
<td>23</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>3,353</td>
<td>3,193</td>
<td>3,277</td>
<td>3,096</td>
<td>2,995</td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

Table 2:8 presents the number of Calling Vessels in 2013-2017, However, when focusing in 2017, the total is 2,995 call, decrease from last year 101 call (-3.26%)

- Container Vessels: 2,584 call, decrease from last year 44 call (-1.67%)
- General Cargo Vessels: 362 call, decrease from last year 64 call (-15.02%)
- Passenger ship: 16 calls, 4 calls (33.33%)
- Naval ship: 2 calls, increase from last year 1 call (100.00%)
- Other vessels: 31 calls. Increase from last year 2 calls (6.90%)
Table 2.9 - The growth rate of vessels services by types of vessel in 2017

<table>
<thead>
<tr>
<th>Group1: Container Vessel</th>
<th>+/- (%)</th>
<th>Group2: General Cargo Vessel</th>
<th>+/- (%)</th>
<th>Group3: Passenger vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 5 Ranking</strong></td>
<td></td>
<td><strong>Top 5 Ranking</strong></td>
<td></td>
<td><strong>Top 3 Ranking</strong></td>
</tr>
<tr>
<td>SCG Logistics CO., LTD.</td>
<td>+15.15</td>
<td>Mitsui O.S.K. Kinkai, LTD.</td>
<td>26.48</td>
<td>TSL N XCO (Thailand) CO.,</td>
</tr>
<tr>
<td>(Barge)</td>
<td></td>
<td>C/O Mitsui O.S.K. Lines</td>
<td>(-1.82)</td>
<td>LTD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Thailand) CO., LTD.</td>
<td></td>
<td>S5 SIA Limited</td>
</tr>
<tr>
<td>Nam Yuen Yong Shipping</td>
<td>+18.35</td>
<td>Eastern Shipping Agencies</td>
<td>(-4.00)</td>
<td>MITSUI O.S.K. LINES</td>
</tr>
<tr>
<td>CO., LTD (Barge)</td>
<td></td>
<td>(Thailand) LTD.</td>
<td></td>
<td>(Passenger)</td>
</tr>
<tr>
<td>SITC Container Lines CO.,</td>
<td>(-2.78)</td>
<td>D.&amp;S. CO., LTD C/O SEA-</td>
<td>(-11.80)</td>
<td>Group: 4 Special</td>
</tr>
<tr>
<td>LTD C/O SITC Container</td>
<td></td>
<td>CHART (Thailand) CO., LTD.</td>
<td></td>
<td>purpose vessel</td>
</tr>
<tr>
<td>Lines (THAILAND) CO., LTD</td>
<td></td>
<td>Kansai Steamship CO., LTD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Feeder Vessel)</td>
<td></td>
<td>C/O Prime Shipping CO., LTD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea Marine Transport</td>
<td>+4.99</td>
<td>Best Shipping CO., LTD.</td>
<td>20.78</td>
<td></td>
</tr>
<tr>
<td>CO., LTD. C/O KMTC (Thail</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Co., LTD. (Feeder vessel)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAN HAI Lines LTD. C/O</td>
<td>(-26.69)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAN HAI lines (Thailand)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTD. (Feeder vessel)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

Table (2:9) illustrates the top customers who are doing businesses with different categories of vessels. Looking at the group under the container vessel category it can be seen that the first two top customers with highest volumes are barge operators followed by feeder vessel operators. Further, it can be noted that they have been able to increase their volumes compared to previous year while some of the feeder operators lose their volumes.

Table (2:10) illustrates the annual container throughputs of BKP from 2013 to 2017, highlighting the volumes of inbound and outbound containers under different categories. Looking at the figures it can be seen that the total container throughput has increased from 2013 to 2015, yet has started to reduce since 2016. Similar pattern can
be observed in Table (2.11) which illustrates the general cargo volume fluctuations during the same period. By analyzing the operational and business situation of BKP during last two years it can be found that the port started losing its customers to its upcoming competitors.

Table 2:10 Container throughput of BKP between 2013-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Inbound (TEUs)</th>
<th>Outbound (TEUs)</th>
<th>Annual Throughput (TEUs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LCL</td>
<td>FCL</td>
<td>Empty</td>
</tr>
<tr>
<td>2013</td>
<td>143,153</td>
<td>694,581</td>
<td>26,675</td>
</tr>
<tr>
<td>2014</td>
<td>131,214</td>
<td>670,909</td>
<td>43,430</td>
</tr>
<tr>
<td>2015</td>
<td>132,362</td>
<td>732,258</td>
<td>32,094</td>
</tr>
<tr>
<td>2016</td>
<td>124,889</td>
<td>734,853</td>
<td>24,635</td>
</tr>
<tr>
<td>2017</td>
<td>125,259</td>
<td>721,095</td>
<td>23,050</td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

Table 2:11 - General cargo volume of BKP between 2013-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>General Cargo Volume (Metric Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1,953,143</td>
</tr>
<tr>
<td>2015</td>
<td>2,092,873</td>
</tr>
<tr>
<td>2016</td>
<td>2,071,787</td>
</tr>
<tr>
<td>2017</td>
<td>1,609,957</td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

2.4.3.2 Warehouse Services

Warehouse services of BKP can be identified into 6 types of warehouses which are (PAT, 2017b):

- In-transit Warehouse
- Bonded Warehouse
- Warehouse (Overtime Cargo)
- Vehicle Warehouse
- Dangerous Cargo Warehouse
- Jute, Cotton, Kapok Cargo Unit
Table 2:12 - Cargo Volume by type of warehouse services between 2013-2017

<table>
<thead>
<tr>
<th>Warehouse Service</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Metric Tons)</td>
<td>(Metric Tons)</td>
<td>(Metric Tons)</td>
<td>(Metric Tons)</td>
</tr>
<tr>
<td>Dangerous Cargo Warehouse</td>
<td>479,216</td>
<td>514,806</td>
<td>559,219</td>
<td>458,435</td>
</tr>
<tr>
<td>In-Transit Warehouse</td>
<td>197,593</td>
<td>208,158</td>
<td>111,328</td>
<td>83,864</td>
</tr>
<tr>
<td>Bonded Warehouse</td>
<td>16,538</td>
<td>14,421</td>
<td>14,273</td>
<td>13,466</td>
</tr>
<tr>
<td>Overtime Cargo Warehouse</td>
<td>898</td>
<td>1,213</td>
<td>1,648</td>
<td>781</td>
</tr>
<tr>
<td>Jute, Cotton, Kapok Cargo Unit</td>
<td>5,572</td>
<td>3,359</td>
<td>3,152</td>
<td>1,036</td>
</tr>
<tr>
<td>Vehicle Warehouse</td>
<td>878 Units</td>
<td>340 Units</td>
<td>351 Units</td>
<td>244 Units</td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

Table (2:12) presents the volume of cargo by type of warehouses in 2014-2017. However, when focusing in 2017, Dangerous Cargo Warehouse’s volume is 458,435 metric tons which decreases from last year 18%, In-Transit Warehouse’s volume is 83,864 metric tons which decreases from last year 24.67%, Bonded Warehouse’s volume is 13,466 metric tons which decreases from last year 5.65%, Overtime Cargo Warehouse’s volume is 781 metric tons which decreases from last year 5.65%, Jute, Cotton, Kapok Cargo Unit’s volume is 1,036 metric tons which decreases from last year 67.13%, and Vehicle Warehouse’s volume is 244 Units which decreases from last year 30.4%.

2.4.4 Future Projects

BKP has put a lot of efforts to develop new services in order to enhance the quality of services and support government’s policies. Here, some of the projects that are needed to highlighted are (PAT, 2016);

2.4.4.1 National Single Window Project: This project is the collaboration between three parties which are LCP, BKP, and Customs Department. In order to reduce the process of service by linking the Goods Transition Control (ETA) with the Outbound Return Document through the electronic system called National Single Window (NSW). This project has been operated since 2017.
2.4.2 The 20 G Coastal Terminal: BKP develops the area in terminal in East Quay to become the specific coastal terminal for barges and invests in 2 new rail mounted gantry cranes. Overall, the quay length is 250 meters with can accommodate 2 barges at the same time. The objective of this project aim to increase the capacity of barge services at and links to the Coastal Berth Development Project (Berth A at Laem Chabang Port to support the barge service between two ports. This project has been operated since April 2018.

2.4.3 The development project of Export-Import Freight Terminal (CFS) to increase efficiency in Exported Container Freight Station and improve the capacity of mechanical handling equipment management system (Inbound CFS). This project is during the contract signing in 2018 and will be operated in 2020.

2.4.5 BKP’s Competitors

In 2017, There are 6 private ports provide service in the same market with BKP. Here, the briefly details of private competitors in Chao Phraya River can be presented as follow;

2.4.5.1 Sahathai Terminal

Sahathai Terminal was found in 2007 as a coastal seaport, then in 2013 it was rebranded to ‘Sahathai Terminal’ and change the strategy by joint venture with MOL and MSC to extend the capability to do business. Currently, the main customers are feeder vessels and barges with provides value added service to attract more customers, such as general warehouse, container freight station (CFS), free trade zone, container depot, in-site customs house, logistic solutions for individual customers (Sahathai, 2016).
2.4.5.2 Unithai Container Terminal (UTCT)

UTCT was established on 1997, located on Samutprakarn province, surrounding with a potential industrialized area, it provides the main service to feeder vessel and barges with the quality and modern facilities such as IT operation system, container tracking system, electronic document process, and in-house customs office to serve the shipping lines, shippers and consignees (Unithai, 2016).

2.4.5.3 Pu Chao Container Terminal. Co., ltd. (PCCT)

PCCT was established by the joint venture between TS Transport & Logistics company and RCL Logistics in order to enhance the competitiveness in the market and be able to develop its services, facilities, technologies for customers. Now, PCCT located on Puchao Samingprai Road, Phra Pradaeng, Samut Prakan province. It also provide services for feeder vessels and barges (PCCT, 2016).

2.4.5.4 Thai Prosperity Terminal Co., Ltd. (TPT)

PTP was established in 1989 by the joint venture between Panjamitr Holding Co., ltd. and Siam Cement Trading Co., ltd. in order to serve international importers and exporters which located on Prapradaeng district, Samutprakarn province. The main service is container vessels berthing and container cargo handling with the value-added services and in-house customs office (TPT, 2002).

2.4.5.5 BMTP Pacific Ltd.

BMPT is established in 2006 with the joint venture between three parties which are Bangkok Modern Terminal Ltd. (BMT) as terminal operator, Pacific International Lines (Private) Pte. (PIL) as a shipping line, and Eastern Maritime (Thailand) Ltd. (EML) as a shipping agency, in order to develop the understanding of stakeholders and customers. BMTP is located on Phra Samut Chedi, Samut Prakarn province with the benefit of easy access to industrial zone. Furthermore, BMTP main customers are feeder vessel and barges which also provide tailor-made service to match customers’ needs (BMTP, 2012).
2.4.5.6. Siam Suksawat Terminal (SSW)

SSW was established in 2016 as a container terminal particularly for barge services from LCP to Bangkok. It is located on Phrapradang, Samutprakarn Province which is very easy to access to road transport and close to industrial ring road and southern Bangkok. In addition, SSW has been developing and offering value-added service with the high quality services to its customers (SSW, 2018).

<table>
<thead>
<tr>
<th>Competitors</th>
<th>2015 Container Throughput (TEU)</th>
<th>2016 Container Throughput (TEU)</th>
<th>2017 Container Throughput (TEU)</th>
<th>2015 General Cargo (Tons)</th>
<th>2016 General Cargo (Tons)</th>
<th>2017 General Cargo (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPT</td>
<td>86,972</td>
<td>127,951</td>
<td>85,976</td>
<td>1,185,300</td>
<td>1,486,729</td>
<td>913,816</td>
</tr>
<tr>
<td>UNITHAI</td>
<td>64,009</td>
<td>60,511</td>
<td>39,683</td>
<td>468,782</td>
<td>517,799</td>
<td>418,149</td>
</tr>
<tr>
<td>BMTP</td>
<td>56,126</td>
<td>63,079</td>
<td>67,661</td>
<td>951,101</td>
<td>988,097</td>
<td>1,109,613</td>
</tr>
<tr>
<td>SAHATHAI</td>
<td>37,920</td>
<td>77,771</td>
<td>64,759</td>
<td>302,996</td>
<td>792,401</td>
<td>604,686</td>
</tr>
<tr>
<td>SSW</td>
<td>-</td>
<td>-</td>
<td>249</td>
<td>171</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PCCT</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Research and Development Division, PAT

Table (2:13) shows the container throughput and general cargo capacity of BKP’s competitors between 2015-2017. Considering the current status, there are 6 private competitors in the market. It can be seen that the biggest competitor in the container market in 2017 is TPT which has the container throughput at 85,976 TEU/years. However, the biggest competitor in the general cargo market in 2017 is BMPT which has general cargo volume at 1,109,613 tons.
CHAPTER THREE
MARKETING STRATEGIES FOR PORTS

3.1 Needs for Port Marketing Strategies

Since 20 years ago, UNCTAD (1995) mentions that, ports have been in the competitive situation and will be more intense the future. Therefore, port’s marketing has been introduced and applied among ports’ community worldwide to survive in the competitive market and enhancing the competitiveness (TIR, 2016). Although, ports try to develop its performance and productivity but without the good understanding of its customers’ needs, ports will not be able to develop its services in the right directions (Park, 2014). Therefore, it seems that marketing strategy is one of the key factor to guarantee the sustainability of Ports in the future (Kabia, 1994).

3.2 Marketing Concepts

As Kotler (1994) states that

“marketing is a social and managerial process by which individuals and groups obtain what they need and what through creating and exchanging products and value with others”

In addition, Dibb (1997) describes that ‘Marketing’ is the management processes that aim to identify, anticipate and satisfy customers’ needs. Moreover, the word ‘Marketing’ aim to understand business’s customer in order to sell the product or service that fit them. (Drucker, 2000). In order to retain the sustainable number of customers in the business, marketing strategies aim on 2 aspects: firstly, the increasing of market share whether open or competitive market. Secondly, to attract new customers which lead to the better growth of profit (Laxe, 2010).
However, Wirtz, Chew, & Lovelock (2012) highlight that traditionally marketing was talking about products. However, nowadays ‘Marketing’ can be divided into 2 types which are ‘Product marketing’ and ‘Service marketing’ (Dibb, Simkin, Pride & Ferrell, 2016).

3.3 Services Marketing

According to Siep (2010) mentions that ‘ports’ can be identified as service-based businesses because ports offer intangible things for instance, quality of service, reliability, and professionalism which depended on customers’ perception (Lagrosen, 2006). As Wirtz, Chew & Lovelock (2012) define service are the economic activities that provided and offer by one to another, normally those activities are designed to meet the customers’ requirements. Moreover, Palmer (2005) categorized the characteristic of ‘Service Marketing’ into 4 types which are; 1) Intangibility 2) Inseparability 3) Heterogeneity and 4) Perishability.

3.4 Developing Services Marketing Strategies

According to EI-Ansary (2006) marketing strategy can be defined as the formulation of marketing processes and activities to meet organization objectives. Moreover, Jolibert & Dubois (2012) point out that business organization need a good understand about the way to develop marketing strategy to achieve its goals and be able to compete in the intense competitive market. Furthermore, for the service businesses, marketing become more important to focus on offering the differentiate services in the way that meaningful to customers (Dibb, Simkin, Pride & Ferrell, 2016). In order to develop service marketing strategies Wirtz, Chew & Lovelock (2012) propose the processes to design marketing strategy, starting with the organization external and internal assessment and conducting company, customers, and competitors analysis, then the well marketing strategy can be developed.
3.4.1 PESTEL Analysis

Kotler (2001) defines PESTEL analysis as the examination technique of macro-environmental factors that affect to business which consisted of 6 elements namely as; political, economic, social, technology, environment, and legal. Moreover, it can be used as a complementary tool for SWOT analysis in order to help organization understand the opportunities and threats that will impact organization (UNICEF, 2017). Hereby, the quick example and overview of six factors in PESTEL analysis can be observed as follow (Mudie & Pirrie, 2006);

- **Political Factors**: such as tax policy, labor legislation, environmental law, trade restrictions, tariffs and overall political stability/instability etc.
- **Economic Factors**: such as economic growth, interest rates, exchange rates, inflation rate etc.
- **Social Factors**: such as population growth rate, age distribution, career attitudes, lifestyles, cultures, believes etc.
- **Technological Factors**: such as technological research and development investments, technology incentives, rate of technological change etc.
- **Environmental Factors**: such as weather, climate change, biodiversity, emission etc.
- **Legal Factors**: such as law, Act., regulations, rules, standards etc.

3.4.2 SWOT Analysis

SWOT analysis is a mandatory process to help organization to identify internal and external factors that affect the business (UNICEF 2017) and can be used as an assessment framework to evaluate organization’s competitive position. In this regard, SWOT stands for strengths, weaknesses, opportunities and threats (Kotler, 2001) Hereby, the quick theoretical overview of four factors SWOT analysis can be observed as follow (Kotler, 2001);
• **Strengths**: the current internal factors of organizational that have prompted outstanding organizational performance.

• **Weakness**: the current internal factors of organizational that increase costs or reduce quality.

• **Opportunities**: the potential attractiveness of external environment that increase company’s probability of success.

• **Threats**: the external environment factors that could negatively affect organizational performance.

### 3.4.3 Five Forces Model

Porter’s Five Forces model can be used as management tool for analyzing the current situation of industry and outside forces perspective (Mathooko & Ogutu, 2015). Moreover, this analysis shows the competitive environment and profitability of businesses within the industry. Here, the brief overview of each force can be seen as follow; (Luxinnovation, 2015)

- **Competitive rivalry**: focusing on the competitive situation within industry. It depends on the number of competitors, market share, and the strengths/weaknesses of the company.

- **Threats of new entrants**: focusing on the difficulties for the new competitors to enter the market and the barriers that protect the market from new competitors.

- **Threats of substitutes**: focusing on the alternative products or services which are supply in the current market.

- **Bargaining power of customers**: focusing on the effect of customer power over the businesses. In that case, businesses must reduce customers power as much as possible.

- **Bargaining power of suppliers**: focusing on the effect of suppliers power over the businesses. In that case, businesses must reduce suppliers power as much as possible.
3.4.4 STP Analysis

According to Wilson & Gilligan (2005), segmentation, targeting, and positioning are the main processes of developing marketing strategy because these are the systematic approaches that help organization to focus on the customers’ needs and offering the right service to the customers of their objectives. Hereby, the quick theoretical overview of STP analysis can be observed as follow;

3.4.4.1 Segmentation

McDonald & Dunbar (2007) defined ‘Market segmentation’ as the approach to group customers into different segment. The reason to do segmentation come from the concept of the limitation of business to respond to all customers’ needs and the mass marketing strategy cannot satisfy all customers. Therefore, businesses need market segmentation (Park and Sullivan, 2009). Basically market segmentation can be categorized into 4 types which are (Kotler, 2017);

- **Geographic Segmentation**: such as regions, continents, countries or smaller areas such as province, cities or districts. Moreover, this is the easy and quick overview to segment customers etc.
- **Demographic Segmentation**: such as ‘socio-economic’ factors, gender, age, ethnicity, education, occupation, and income etc.
- **Psychographic Segmentation**: such as value, personality, attitude, lifestyles, cultures etc.
- **Behavioral Segmentation**: such as group of people being nonusers, light user or heavy users or can referred as to ‘needs-based segmentation’ that focus on the truly needs of particular services.

3.4.4.2 Targeting Customer

Jobber (2007) states that target market is the technique to address the chosen segment of customer which organization decides to serve. However, Wedel & Kamakura (2000) highlight that the particular target market will exist in the short period of time.
Therefore, target customers need to be updated frequently in order to capture the right customers in the market. According to Cheverton (2004), targeting approach can be divided into three types namely as; 1) Undifferentiated marketing 2) Differentiated marketing and 3) Concentrated marketing (or niche marketing). However, Wirtz, Chew & Lovelock (2012) specially highlight that targeting customers for service marketing can be categorized into four strategies which are; 1) Market focused 2) Service Focused 3) Fully Focused and 4) Unfocused.

3.4.3.3 Positioning

Positioning is the strategy to identify organization brand image and product or service value in customer perspective that differentiate the service from competitors in the market (Zikmund & Amico, 1996). Regarding in ports perspectives, positioning strategies can be divided into two categories 1) port as a public entity, which aim to maximize social welfare. 2) port as a profitable organization, which aim to maximize profit (Zaman, 2016).

3.4.5 Seven (7) Ps Marketing Mix

As defined by Guerassimoff & Thomas (2015) marketing mix is the tool or guideline for organization to understand the fundamentals of element for implementing marketing strategies. However, organization should establish for marketing mix strategies for in each target group. Further, each marketing strategy should respond to the environmental factors and critical situation that affect the business (Kotler, 2001).

The traditional concept of ‘marketing mix’ is consisted of four basic elements which are product, price, place (or distribution) and promotion (or communication), commonly referred to the ”4 Ps”. However, Wirtz, Chew and Lovelock (2012) point out that service business should extend marketing mix by adding another 3ps which are process, physical environment and people. To summarize, marketing mix for services business referred to as 7 Ps marketing mix. Hereby, the quick theoretical overview of 7 Ps marketing mix can be observed as follow (CIM, 2009);
- **Product Strategy**: To develop the right product/service to match target customers’ requirements. For port business, services can be identified into three groups as 1) cargo handling services 2) logistics services and 3) storage services. Moreover, Zaman (2016) describes that products of ports are very complex and the larger of port business areas usually handle multiple different type of cargo.

- **Pricing Strategy**: To develop the best price for that particular service that customers willing to pay for it. However, ‘price’ for services do not always mean ‘cost’ but can refer to values for customers such as ability to access the services information, reliability, or security etc.

- **Place Strategy**: To develop the channel that make services available and match buying behavior to the target customers. Moreover, businesses need to ensure that it is appropriate and convenience for that specific customers.

- **Promotion Strategy**: To develop the way to communicate brand position, information of services, special offers, or activities to its customers. Furthermore, regarding this strategy for Port Authorities, an official website work very effective in both ways; firstly, the customers can find the information of the particular services. Secondly, end users and people in the communities or country will be aware of the responsibilities of Port Authority to the communities and country (Zaman, 2016).

- **People Strategy**: To develop human resources through the fine recruitment process, training programs, individual KPI, and carrier path etc. Due to employees are the group of people who handed service to customers. Therefore, it is important to make sure that the employees are motivated and well trained in order to have expertise and right attitude.

- **Process Strategy**: To develop the process of giving services to the target customers. This strategy directly relates to customers’ impression and satisfaction.

- **Physical Evidence Strategy**: To develop the confident of customers to choose our services through the good appearance of tangible evidences such as building, landscaping, interior furnishings, equipment, vehicles, staffs’ uniform, organization’s logo etc.
CHAPTER FOUR
RESEARCH METHODOLOGY

As highlighted previously, the basic aim of the research study is to develop port marketing strategies for BKP in Thailand. This chapter looks at the methodology that is being followed to achieve the basic objectives of the research study.

4.1 Research Approach

Research approach mainly followed the qualitative approach where secondary data obtained from previous literatures, statistic reports, government reports, internal audit report, official websites and other related publications were used as inputs for analysis and discussion. Considering the practical difficulties due to limited resources and time frame available under the capacity of the researcher, primary data were not used for the study.

4.2 An Analytical Framework

Figure 4.1 - Analytical Framework

Compiled based on Wirtz, Chew & Lovelock (2012)
As Following framework is used to examine marketing situations and develop port marketing strategies for BKP. The framework is divided into three main parts which are 1) External and Internal Environment Assessment. 2) STP strategies 3) Seven (7) Ps Marketing Mix. The details of each parts will be described as follow;

4.2.1 External and Internal Environment Assessments

The environmental assessments are divided into three dimensions which are 1) Customer Analysis 2) Competitors Analysis 3) Company Analysis. The details of each analysis will be conducted as follow;

4.2.1.1 Customer Analysis covers the overview of main services and main customers of BKP by examine the market size and growth, profitability, and trend of the market. Moreover, customer’s needs and expectations must be considered for this analysis.

4.2.1.2 Competitors Analysis covers the identification of competitors, current position of competitors in the market, Market shares between BKP and all competitors in each market, strengths/weaknesses of competitors.

4.2.1.3 Company Analysis covers the examination of PESTEL and SWOT analysis to evaluate organization’s environment both internal and external factors. The results of this analysis will help BKP to identify strengths, weaknesses, opportunities, threats of competitors. Moreover, this stage cover the evaluation of brand image and market positioning of BKP.

4.2.2 STP Analysis

This strategic analysis is used to evaluate BKP’s customers into different group of customers then focusing on the potential customers and positioning organization in the target market. Here, the detail of how to develop STP strategies for BKP can be conducted as follow;
4.2.2.1 Customers segmentation is developed based on the customer analysis’s results.

4.2.2.2 Targeting customers is developed based on the consideration of both competitors analysis and company analysis.

4.2.2.3 Positioning for BKP in the market is also developed based on the consideration of both competitors analysis and company analysis. Moreover, include the image of governmental organization which is support benefit of the country.

4.2.3 Seven (7) Ps Marketing Mix

Seven (7) Ps marketing mix are developed to identify how to implement marketing strategies for BKP in practical ways. Here, the development of 7 strategies will be designed namely as;

- Product Strategy
- Price Strategy
- Place Strategy
- Promotion Strategy
- People Strategy
- Process Strategy
- Physical Evidence Strategy

4.3 Data Issues

This research is based on secondary data obtained from statistical reports of BKP, government reports, previous literatures, official websites of PAT and other data sources. As a marketing analysis although it is better to consider primary data sources as well, in this study a primary data collection was not carried out due to the limited time frame and limited resources available to the researcher.
CHAPTER FIVE

ANALYSIS AND FINDINGS

The importance of marketing strategies and the way to develop them were discussed in previous chapters. Here, in this chapter, marketing strategies for BKP will be developed based on the research analytical framework, thus the analysis and findings of the research study are illustrated as follow;

5.1. Customer Analysis

The analysis of BKP’s customers can be categorized under 2 main aspects namely as; market competitiveness and customers’ needs and expectations.

5.1.1 Market Competitiveness.

The study mainly focusses on BKP’s market size, market growth and market trends where its services are divided into 2 main services as vessels services and warehouse services. Main group of customers are divided based on their main services as shipping lines and warehouse customers; thus the details of market competitiveness of each main customer can be described as follow;

5.1.1.1 Shipping Lines

Shipping lines can be categorized into 4 groups based on their type of vessels such as container vessels, general cargo vessels, passenger vessels and others that use BKP berth services. However, as identified in previous chapters, container vessel operators can be identified as the main group of customers where container vessels have transported higher volume of cargo comparted to general cargo vessels. However, it is needed to highlight that BKP is having a draft limitation of 8.2 meters, thus this group of container vessel operators is comprised of feeder vessels and barges, but not the main lines with larger vessels. Even in this case, barge operators transport more containers compared to feeder vessel operators where they are ranked at the first and the second places among the highest container volume transporters for the shuttle
services from LCP to BKP with growth rates of 21% and 16% respectively in 2017 compared to 2016.

Figure (5.1) illustrates total number of vessels called at BKP where container vessels represents a major share out of total. With respect to that, Figure (5:2) illustrates the total container throughput distribution at BKP where the inbound cargo represents more volume than outbound.

Source: Research and Development Division, PAT

Figure 5:1 - Summary of Vessel Calls at BKP 2013-2017

Figure (5.1) illustrates total number of vessels called at BKP where container vessels represents a major share out of total. With respect to that, Figure (5:2) illustrates the total container throughput distribution at BKP where the inbound cargo represents more volume than outbound.

Source: Research and Development Division, PAT

Figure 5:2 - Total Container Throughputs at BKP 2013-2017
5.1.1.2 Warehouse Customers

The warehouses can be grouped into 6 categories as 1) In-Transit Warehouse, 2) Bonded Warehouse, 3) Warehouse for Overtime Cargo, 4) Vehicle Warehouse, 5) Dangerous Cargo Warehouse and 6) Jute, Cotton, Kapok Cargo Unit. There, the warehouse customers can be identified as freight forwarders and end users such as importers/ exporters that use warehouse services of BKP. However, based on statistics of the port, dangerous cargo warehouse has the highest volume compare to the other warehouses, as BKP is specialized in handling those types of cargo under international standards. But looking at the trend of cargo volumes, there can be seen a drop in 2017 compared to 2016; along with the volume drops of other five warehouses since 2015. As mentioned previously, BKP is losing its strength in warehouse operations business due to the strong competitions from upcoming private sector new entrants. Thus, BKP needs to understand what their customers’ real needs and expectation from the port in order compete in the warehouse operations business.

![Figure 5:3 - The Warehouse Service Volume of BKP 2014-2017](source)

5.1.2 Customers’ Needs and Expectations

In order to conduct the proper analysis of customers the customers’ needs and expectations should be examined. Here, the needs and expectations of BKP’s main customers are presented as follow;
5.1.2.1 Shipping Lines

Table 5:1 – Shipping Lines’ Needs and Expectations

<table>
<thead>
<tr>
<th>Needs</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>- High quality and high efficient services</td>
<td>- Customer friendly employees</td>
</tr>
<tr>
<td>- Less time in port</td>
<td>- User friendly official website with</td>
</tr>
<tr>
<td>- Less paper transaction</td>
<td>updated information</td>
</tr>
<tr>
<td>- Modern cargo handling equipment</td>
<td>- Less paper transaction</td>
</tr>
<tr>
<td>- High standards of safety and security</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reliable and punctual cargo operations</td>
</tr>
<tr>
<td>2. Reduce emission from port’s operation</td>
</tr>
<tr>
<td>3. Transparency of operations and services</td>
</tr>
</tbody>
</table>

Source: State Enterprise Performance Appraisal (SEPA) Report of PAT, 2018

Here it is necessary to clarify the needs from expectations such that the needs are the basic requirements that the customers think the BKP must have, while expectations are the requirements they think BKP better to have beyond the basic needs. Thus, as highlighted above, shipping lines require high quality and high efficient operations with modern cargo handling equipment supported with a good document transactions system such as national single window system that reduce unnecessary repetitive paper works. Moreover, time in port is very important for shipping industry as it costs them a lot, thus shipping lines need shortest possible time in ports. Considering the services aspect, customers need good service minded employees, reliability in services, less paper works; and interactive user friendly web site with updated information. When considering expectations, shipping lines expect reliability, punctuality and transparency in BKP’s operations and services. Moreover, with respect to the expectations, concerns on environmental issues becoming more popular such as reducing CO₂ emissions and using solar power or renewable energy.
### 5.1.2.2 Warehouse Customers

Table 5.2 - Warehouse Customers’ Needs and Expectations

<table>
<thead>
<tr>
<th>Warehouse Customers</th>
<th>Needs</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td>- Clean and organized area for the cargo storage areas</td>
<td>- Good service minded employees</td>
</tr>
<tr>
<td></td>
<td>- Flexible management</td>
<td>- Knowledgeable and skilled employees</td>
</tr>
<tr>
<td></td>
<td>- Modern and enough handling Equipment</td>
<td>- User friendly official website with updated information.</td>
</tr>
<tr>
<td></td>
<td>- 24/7 operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- High standard of safety and security system</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectations</td>
<td>1. Reliable and punctual operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Transparency operations and services</td>
<td></td>
</tr>
</tbody>
</table>

Source: State Enterprise Performance Appraisal (SEPA) Report

As highlighted above, considering the warehouse operational aspect, customers need clean and organized area for their cargo operations with modern and adequate amount of warehouse cargo handling equipment. Customers also need flexible warehouse management approaches with 24/7 operation. For the services aspect, customers need knowledgeable and skilled employees with the good service mind. Moreover, the high standards of quality, safety and security are expected in both operations and services. In addition, as an international port, BKP needs to maintain a user-friendly official website with updated information to interact with customers and to disseminate information they might need.

When considering the expectations, warehouse customers expect reliable and punctual of warehouse operations with zero damages to cargo and zero opportunities for thefts. Moreover, the transparency of services is also very important and are expected from BKP’s warehouse services.
5.2 Competitors Analysis

Competitor analysis is an important consideration when operating in a very dynamic and competitive business environment. In order to conduct the competitor analysis, this research study uses Five Forces Model for analyzing the current competitive situation of BKP. The results of those analysis can be presented as follows;

5.2.1 Five Forces Model Analysis

In this analysis, the five forces that affect BKP’s operations and services are examined as: 1) Current industrial competition situation 2) Threats of new potential entrants 3) Threats of substitutes 4) Bargaining power of suppliers, and 5) Bargaining power of customers. Here, Five Forces Model Analysis of BKP can be presented as follows;

![Five Forces Model Analysis Diagram]

Figure 5:4 - BKP’s Five Forces Model Analysis
5.2.1.1 Competitive Rivalry

The growth of global trade and the investment projects of Thailand Government will give the positive impacts on waterway transportation industry. Regarding BKP, there are many projects that have been developed in order to improve its serves. However, the higher competition from the private competitors start to give pressures on BKP. Although, BKP still maintain the leadership position in the market due to its strategic location, which is being the only port that is located in the Bangkok area and its size of operational areas along with the large number of infrastructure facilities and equipment; create a big advantage for BKP. Meanwhile, Private competitors also aware about the BKP’s competitive advantages that they cannot compete. Therefore, the private competitors have tried to enhance their competitiveness by developing new value added services such as the free trade zone, tailor-made services for each customer and logistic solution centers to attract more customers. Moreover, most private ports have used the alliance strategies to cooperate with shipping lines and logistic service providers in order to strengthen their services. Therefore, it seems like BKP cannot depend on its old competitive advantages anymore, but it must enhance and extend its value-added services to match with latest industry standards to compete with the competitors.

5.2.1.2 The Threats of New Potential Entrants

BKP was established 60 years ago as the international port of Thailand operated by PAT. However, when Thai economic was growing, private sector started to gain capacity to invest and operate port operations while the government also open up the investment opportunities for private organizations to operate their own ports. Nowadays, there are 6 private competitors located along the Chao Phraya River and provide services in the same market as BKP. However, when considering deeply, there are only 4 main private ports that have high volume cargo handling capabilities which showed quick growths recently. Except those players, there are 2 other private ports that just appeared in the market since 2016, which still have small volumes in the market. Looking at these scenarios it can be seen that, huge investment requirements,
expertise knowledge necessities and land limitations in Bangkok city area appears as high barriers to the new private sector entrants.

5.2.1.3 Threats of Substitutes

Threats of substitutes of BKP can be divided into two main categories. First, the threats of private ports along the Chao Phraya River that provide services in the same market as BKP. However, it seems like BKP still has little more advantage over its private competitors due to the high number of big customers are still using BKP’s services even at this moment and their switching costs are quite high. Therefore, if BKP’s customers decide to change to private ports, it means a long term decision which is not easy to take. However, at the same time, if BKP wants to attract customers of their competitors; or BKP’s ex-customers back, it is also not that easy at the moment. Hence, BKP must try its best to retain the loyalty of its customers as much as possible by identifying and providing operational services that they expect from BKP.

Second, the threats from other transport modes such as road and rail transportation that customers have alternatives to use transportation services in term of the route between LCP and BKP. However, the cost of using waterway is considered as the cheapest option compare to road rail transportation. It can be concluded that waterway provide the higher volume, low cost transportation capability than other mode.

5.2.1.4 Power of Customers

The trends of shipping lines alliances strategy make the shipping lines become bigger and stronger. Moreover, the private ports provide try to differentiate their services by provide high technologies and innovation, one-stop service, and flexible for each individual customers etc. Therefore, this lead to the more bargaining power of customers. However, BKP still has the major power over its customers when considering of the better strategic location for consolidate and distribute cargo to/from Bangkok city.
5.2.1.5 Power of Suppliers

The suppliers of BKP are construction companies, equipment suppliers, software and system providers, maintenance service providers, and outsourcing companies etc. Due to the BKP is operated by government through PAT, therefore, the policy and direct power of the port development in accordance with government policy. Furthermore, BKP always spend big amount of quality and quantity when purchasing or investing. Therefore, BKP has the bargaining power over the suppliers completely.

5.2.2 Market Shares in the Competitive Market

In order to understand the overall picture of the competitiveness in the market. The market shares between BKP and competitors needed to be considered. This section will focus closely on the market share among ports in the market.

![Market share of Container Throughput 2017](image)

Source: Research and Business Development Division, PAT

Figure 5.5 - Market Share of Container Throughput among Ports in Chao Phraya River 2017

The Figure (5.5) shows the market share of container volume among ports in Chao Phraya River in 2017. It can be seen that BKP has market share by 84% which is in the leader position among competitors in the containerize cargo market due to the big capacity and the good strategic location. The market share of BKP’s competitors in container throughput market are TPT by 4.83%, BMTP by 3.80%, Sahathai Terminal by 3.64%, Unithai Terminal by 2.23%, PCCT by 1.36%, and SSW by 0.07%.
However, when considering revenue and cargo volume of the competitors’ performance, it shows that their profit and container throughput continuously growing every year.

The Figure (5:6) shows the market share of general cargo volume among ports in Chao Phraya River in 2017. It can be seen that BKP has market share by 33% which is in the leader position among competitors in the general cargo market due to the big capacity and the good strategic location. The market shares of BKP’s competitors in container throughput market, number one is BMTP by 22.99%, then TPT by 18.93%, Sahathai Terminal by 12.53%, Unithai Terminal by 8.66%, PCCT by 1.36%, and SSW by 0.01%. However, it can be seen that even BKP is the leader of the market but the market shares are less than the containerize cargo market.
5.3 Company Analysis

This analysis aims to examine the internal and external factors that effect to BKP management and operations in order to understand BKP’s situations. The company analysis is conducted by using the PESTAL Analysis and SWOT Analysis. Thus, The results of these analysis can be presented as follow;

5.3.1 PESTEL Analysis for BKP Marketing Strategies

PESTEL analysis is used for examine the external factors of organization, therefore, in this section, the current external factors of BKP will be analyzed in the view of Political, Economic, Social, Technology, Environmental and Legal. The detail of PESTEL Analysis is presented as follow;

![PESTEL Analysis Diagram]

Figure 5.7 - PESTEL Analysis of BKP’s Marketing Strategies
5.3.1.1 Political

Regarding the situations of political in Thailand, it is obvious that it has very stable status now. Moreover, the government give the big support to logistic and supply chain of the country by established long term national strategic plan for 20 years (2017-2036). Then, the following plan that relate to BKP is ‘National Economic and Social Development Plan No.12 (2017-2021)’ and ‘Infrastructure and logistic development plan’ (2017-2021) of the Ministry of Transportation. Further, ‘the State Enterprise Strategic Plan’ for the fiscal year 2017-2021 of the Ministry of Finance also involves. Moreover, it can be concluded that Thai government try to encourage transportation industry to cooperate and provide multimodal transport in order to reduce national logistics cost and enhance logistics competitiveness of Thailand.

5.3.1.2 Economy

Thailand GDP growth has increased every year since 2015 and the forecast shows the tendency of the growth in the future. This means the need of products and services within Thailand will increase. Moreover, due to the opportunities from ASEAN and CLMV countries will enhance the market for Thai companies to increase sale profitability. Thus, this can be the good opportunities of Thailand regard to the strategic location in the center among ASEAN and has the boarder connect to CLMV countries. Therefore, it has positive impacts to BKP due to the high demand and cargo volume that will be loaded and discharged at LCP will be higher and then the feeder vessels and barge service connecting to BKP will be growing as well.

5.3.1.3 Social

It is obvious that, globalization and digitalization effect life style of people all over the world. Nowadays, people uses smart phones, tablets, laptops and computers access to internet and use internet to communicate more easily and convenience even more the trade patterns are also use internet as the channel of trade transactions. Moreover, people can access and research data and information about anything they want and on
the other hand, people can give the reviews, feedback, and opinions about products or services faster and easier. Therefore, the ways of doing business also changed to meet customers’ life styles and requirements. In additions, due to the liberalization of trade from the benefit of trade agreements and E-commerce make the important of languages to communicate with each other are more important to businesses (Such as English or Chinese) to gain competitive advantages among competitors.

5.3.1.4 Technology

Digitalization became the highly important factor that change the world’s businesses to the next level. Now, it seems like internet and technology become the important thing in people’s life. Digital economy effects trade patterns and transportation technologies as well. Furthermore, digitalization has inspired new technologies and innovations to help business to provide better service to its customer. Regard to this aspect, Thai Government established a policy called ‘Thailand 4.0’ in order to push Thai entrepreneurs gain benefits from the next era of trade pattern such as internet of things and big data, moreover, supporting Thailand to be able to compete with other countries. Therefore, port business has no exception, as can be seen that the technologies such as computer systems, internet, websites, cargo tracking systems etc. are the ‘must’ for port business today in order to maintain the position in the competitive market. However, the demerit of technology such as cyber security can cause a lot of problems for port as well. Thus, Digitalization can be advantage for ports or any business if it has good used and management systems but on the other hand it can be harmful for ports if it is used in the wrong ways.

5.3.1.5 Environment

Regarding the location of city port of BKP, the environmental issues are seriously concern from the community surrounds its port and Bangkok city municipal. Because of Ports operations can cause negative impacts to environments including on the quality of biodiversity, air, water, soil, as well as dust, noise and congestion problems.
Moreover, BKP locate in the heart of the city, so this means there are a lot of concern towards BKP about environmental impact of its activities. Furthermore, there is a trend of rising customers’ awareness, about the environment, green services, and health and safety environments. In addition, the pressures from the trend of ‘green port’ and the social responsibility to the communities are more intense. Therefore, BKP is under the ‘Safety, Occupational Health and Working Environment Act. (2011)’ and ‘Greenport Projects’ with the higher challenges KPI every year for continuous improvement.

5.3.1.6 Legal or Regulation

When considering legal aspect of ports, Nowadays, port’s operation is pressured by a lot of standards and regulations in many aspects of operations. For instance, Port Safety, Health and Environmental Management Code (PSHEM Code), International Ship and Port Facilities Security Code (ISPS Code), Moreover, for PAT, State-owned enterprise organization, must follow further as a Government entity such as Port Authority of Thailand Act., State Enterprise Labor Relations Act., Governmental Procurement Act., Governmental Official Information Act. Moreover, the international standard such as ISO 27001, ISO 20000, ISO 22301 are also the competitive advantage to BKP in par of trustworthy and reliability customers to choose BKP’s services. Therefore, the rules, regulations and standards have pushed BKP to continuously improve its managerial styles and operational works. but on the other hand BKP as a state-owned enterprise port are under the humorous number of Act., laws, and regulations from government can effect the flexibility of its services and operations.
5.3.2 SWOT Analysis for BKP’s Marketing Strategies

SWOT analysis aims to determine factors that effect the organization which can be divided into 2 main groups which are 1) The external factors (Opportunities and Threats) and 2) The internal factors (Strengths and Weaknesses). Here, the results of SWOT analysis are presented as follow;

<table>
<thead>
<tr>
<th>Internal Factors</th>
<th>Strength</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic location on the central of Bangkok</td>
<td>• Rigid organization structure and managerial styles.</td>
<td></td>
</tr>
<tr>
<td>Large areas for operational activities and port expansion</td>
<td>• High number of government Act., standards and regulations</td>
<td></td>
</tr>
<tr>
<td>Specialize in berthing services, cargo handling services, and warehouse services</td>
<td>• Marketing activities are not fully implement</td>
<td></td>
</tr>
<tr>
<td>Highly skill employees</td>
<td>• Low efficiency of collected and usage of customers’ data</td>
<td></td>
</tr>
<tr>
<td>High number of capacity to serve its customers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External Factors</th>
<th>Opportunity</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Globalization and Digitalization</td>
<td>• Changing of government policies</td>
<td></td>
</tr>
<tr>
<td>Trade agreements, ASEAN, CLMV</td>
<td>• Changing of trade patterns</td>
<td></td>
</tr>
<tr>
<td>New financial instruments to support BKP investment projects.</td>
<td>• Rapid changes of Digitalization and transportation technologies and innovations</td>
<td></td>
</tr>
<tr>
<td>Rapid changes of Digitalization and transportation technologies and innovations</td>
<td>• Private competitors (tailor-made service, value-added services, one-stop services logistic solutions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Development of other transportation modes</td>
<td></td>
</tr>
</tbody>
</table>

5.3.2.1 Strengths

The major advantage of BKP is the strategic location which is in the central of capital city, Bangkok, with the large area of land for its utilization for operation activities and the expansion projects in the future. Further, the big number of highly skilled employees and the specialty in berthing services, cargo handling services, and warehouse services are also the main advantage of BKP that can accommodate a huge capacity of vessels calls and cargo volume as the leader of the market among private competitors.
5.3.2.2 Weaknesses

Regarding BKP as a state-owned enterprise, therefore the organization structures and managerial styles are rigid and not flexible enough for the new changes and new challenges for port businesses. Further, the big number of Government Act., standards and regulations also lead to the difficulties of BKP to provide services as same like private competitors for example, tailor-made service, value-added services, one-stop services logistic solutions for individual customer. Moreover, the lack of adequate data collecting processes and low efficient of the IT systems to integrate all important database for marketing activities. Those are the reasons that BKP still cannot fully implement of marketing activities and meet customers’ needs and expectations.

5.3.2.3 Opportunities

Considering the changes from Globalization and Digitalization will increase trade volume all over the world. Thus, the demand of waterway transport will be increased as well. Moreover, the opportunities from trade agreements, AEC and CLMV countries give the positive opportunities for the increasing trade volume of Thailand too. In that case, LCP as an international gateway of cargo transportation must gain a lot of benefit from the highly import and export cargo in the future. In addition, Thai Government established the policies to invest in multimodal transportation in Thailand and LCP’ expansion project is one of that master plan too. Therefore, BKP as a consolidation and distribution port linking LCP and Bangkok city must also get more cargo volume as well. Moreover, the new instrument of financial subsidize for BKP’s investment are more flexible such as Public-Private Partnership (PPP), business units, affiliates. This means BKP increase competitiveness by reaching the capital for its big investment faster than before.
5.3.2.4 Threats

BKP has been limited its performance of container volume at 1 million TEU per year by Government to reduce the congestion in Bangkok area since 1991. This means that BKP cannot expect for the growth of cargo volume beyond this level. Moreover, the private competitors are continuously improving their services and much stronger every day. Furthermore, the big threats that may effect BKP are the rapid changes of trade patterns and transportation technologies, and more importantly the development of other transport mode such as double track rail way and new highway expansion projects also be the threats for BKP if it cannot adapt its strategies and services to all those challenges.

5.4 STP Analysis

STP Analysis is divided into 3 main parts which are 1) Customers Segmentation 2) Targeting Customers(s) 3) Positioning For BKP, this analysis is one of the marketing strategies to understand its customers and be able to focus on the right customers and moreover, to present its services positioning to the target customer(s). Here, the details of STP analysis of BKP are present as follow;

5.4.1 Customers Segmentation for BKP

BKP’s customers categorizes based on the type of its 2 main services which are berthing services and warehouse services. Therefore, the main segment of customers is also divided into 2 main groups which are Shipping lines and warehouse customers. However, in each main group this research wants to give deeply focus more on the and sub-segments as follow;
Table 5.4 - Customer Segmentation of BKP

<table>
<thead>
<tr>
<th>Main Segment</th>
<th>Sub-Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shipping Lines</td>
<td>1.1 Container Vessels</td>
</tr>
<tr>
<td></td>
<td>1.1.2 Barge Vessels</td>
</tr>
<tr>
<td></td>
<td>1.2 General Cargo Vessels</td>
</tr>
<tr>
<td></td>
<td>1.3 Passenger Vessels</td>
</tr>
<tr>
<td>2. Warehouse Customers</td>
<td>2.1 Dangerous Cargo Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.2 In-transit Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.3 Bonded Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.4 Vehicle Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.5 Jute, Cotton, Kapok Cargo Unit Customers</td>
</tr>
</tbody>
</table>

5.4.2 Target Market Strategies for BKP

In order to targeting the right group of customers, this analysis needs to consider closely in the competitors’ analysis and BKP’s external and internal environment assessment. Regarding competitors’ analysis part, all of private competitors also provide berthing services for feeder vessels and barges. Although, the capacity of private competitors is less than BKP but they try to invest in new technologies, human resources and use the alliance strategies with shipping lines or logistics provider companies in order to strengthen the competitiveness. Furthermore, all of the competitors invest and try to be more than ports for customers by provide the value added service and logistic solutions to make customers more convenience.

When considering the company’s analysis part, the external environment indicated that world economy will grow continuously in the future and Thailand economy forecast shows the tendency of growing of trade volume and GDP growth rate. Thus, import and export of goods are expected that demand for cargo shipping will increase. However, the Government's Logistics and transportation policies also supporting and developing every modes of cargo transportation in Thailand. Therefore, it can be concluded that there will be more cargo volume at LCP then, it can be said that cargo from LCP will be transported to the heart of Bangkok and industrial zone around...
Bangkok more in the future. Therefore, the volume of vessels calls between LCP and BKP must be increase as the same directions as the cargo volume.

However, in the targeting customers’ analysis, it is important to look more deeply within the type of vessels calls at BKP. The statistic shows that container vessels brought much more cargo volume than general cargo vessels. Furthermore, when focus particularly on the container vessels, the statistic shows that the trend of feeder vessel will be decreased, on the other hand, the tendency of coastal service will be increase. This means the barge vessel call will be higher. Therefore, it can be concluded that the most potential customer that BKP is the barge operators. Therefore, BKP must choose the target customers by selecting the most potential customers that will maximize profit and growth for BKP which is ‘Barge operators’.

Table 5.5 - Target Customer of BKP

<table>
<thead>
<tr>
<th>Main Segment</th>
<th>Sub-Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shipping Lines</td>
<td>1.1 Container Vessels</td>
</tr>
<tr>
<td></td>
<td>1.1.1 Feeder Vessels</td>
</tr>
<tr>
<td></td>
<td>1.1.2 Barge Operators</td>
</tr>
<tr>
<td></td>
<td>1.2 General Cargo Vessels</td>
</tr>
<tr>
<td></td>
<td>1.3 Passenger Vessels</td>
</tr>
<tr>
<td>2. Warehouse Customers</td>
<td>2.1 Dangerous Cargo Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.2 In-transit Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.3 Bonded Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.4 Vehicle Warehouse Customers</td>
</tr>
<tr>
<td></td>
<td>2.5 Jute, Cotton, Kapok Cargo Unit Customers</td>
</tr>
</tbody>
</table>

**5.4.3 Positioning Strategies for BKP**

When considering the positioning aspect of the BKP for the target customers, it is very important to note that BKP is a state-owned enterprise port. Therefore, the role of BKP should be identified in 2 aspects; first, the port as a public interest that supports the logistics and supply chain operations in the country; and second, the port as an individual business organization that operates to earn revenues in highly competitive market with high quality service. In that sense, Figure (5.8) is an illustration of how
the BKP can position itself and differentiate its image in customers’ minds from its competitors where it will be positioned as a port that serves for public interest with high quality service for its target customer (barge operators).

5.5 Seven (7) Ps Marketing Mix Strategies for BKP

In this section, seven (7) Ps marketing mix will be developed as the important marketing tools for service businesses to ensure that STP strategies will be put into actions. Here, the details of seven (7) Ps Marketing Mix of BKP’s target customer (barge operators) will be presented as follow;

5.5.1 Service Strategy

Newly established dedicated “Coastal Terminal” will provide priority and more convenient services for barge operations at BKP. The terminal is equipped with latest cargo handling equipment and provide direct connections with the coastal terminal at LCP. Moreover, this terminal can accommodate two barges at the same time while providing high quality and efficient services 24/7.
5.5.2 Price Strategy

Considering the fact that the BKP is a state-owned enterprise and being a leader in the oligopoly market, the price strategies do not provide effective results when competing with the other competitive ports along the Chao Phraya river. It is necessary to highlight that the private competitors always refer to BKP’s tariff structure as their base line for their services and change accordingly. Hence, the importance of BKP’s pricing strategy is that, it should be transparent and fair enough which provides benefits for its customers and the whole country at the end; where the “price” does not refer only to the ‘money’, but it means the ultimate value perceived by the customers. In that case, BKP tries to reduce port stay time for their customers (barge operators) as shipping lines do not want to waste time at ports for their container carriers that they save while sailing.

5.5.3 Place Strategy

BKP has the advantage of strategic location as it is located at the central of Bangkok with rail connections inside the port area, road transportation networks within the city and express way to connect the eastern part of the country. Hence, BKP needs to promote its coastal terminal service as a consolidation and distribution center for cargo in Bangkok and the surrounding industrial areas as a place strategy.

5.5.4 Promotion Strategy

Promotion strategy can be considered as a mean of communication between ports, customers and community where the strategies of BKP for barge operators can be implemented in two different ways. First, direct selling, newsletters and official website can be used as communication and promotion tools considering their suitability and the characteristics of shipping and port industries due to their dynamic and rapid changing nature; where the updating new information does not require much budgets on them. However, BKP needs to update its official website in a way that it provides real time updated information according to the needs and expectation of the
customers. Then, second, communicating the benefits of the coastal terminal to the community where it facilitates in increasing the effectiveness and competitiveness of logistics and supply chain functions of country’s local and international trade. Here, public relations programs, event marketing and the official website can be used as suitable promotion tools to increase the awareness among the community. This communication aspect will enhance the image of BKP in the country while leading to gain much support from the community.

5.5.5 People Strategy

Although the port operations business is a capital intensive business, the importance of human element cannot be neglected as the berthing services and all the cargo handling operations are carried out by the employees of the coastal terminal. The customers assess the image of BKP through the quality of services given by its employees. In that sense, the terminal needs to have a work force with right level of knowledge, skills and attitudes that leads to achieve the organization’s goals. Therefore, employee recruitment process of the terminal should be streamlined in a way that it asses all the aspects of employees to select right employees to the right positions at the terminal. This will help the BKP to have a strong operational staff with high level of skills who are experts in what they do along with good communication skills that shows a better attitude towards customers.

5.5.6 Process Strategy

Considering the complex and international nature of the shipping industry, it is important that BKP provides an easy and convenient processes of services to its barge operators. One of the project that can be used as a process strategy is the National Single Window (NSW) project which links LCP, BKP, and Customs Office into one single platform. Therefore, BKP’s customers, particularly the barge operators will feel much more convenience when using 20G coastal terminal of BKP due to reduction of
unnecessary repetitive documentation handling which leads to save time, effort and money. Further, it is necessary that BKP provides IT solutions for its customers for checking schedules and status of berthing services in real time.

5.5.7 Physical Evidence

The office building, its infrastructure, cargo handling equipment, other facilities and also the awards and certificates from international organizations can be considered as physical evidence that represents the image of BKP. In that sense, it is important to ensure that BKP maintains an organized and clean work environment at its premises including its head office, warehouses and yards. Further, the awards and certificates it received from international organizations increase the trust in customers’ minds proving that BKP provides services with high quality levels. Therefore, BKP needs to make sure that its customers receive this information. In that case, these strategies can be viewed as having some links to the promotion strategies as well.
CHAPTER SIX

DISCUSSION AND IMPLICATIONS

6.1 Discussion
The discussion part can be identified into 3 parts as: 1) The external and internal environments, 2) STP strategies and 3) Seven Ps Marketing Mix. These aspects, can be discussed in detail as follows;

6.1.1 BKP’s External and Internal Environment

International trade has been increasing rapidly due to the changes from Globalization and Digitalization. As highlighted by IMO, over 90% of international trade is carried by sea, illustrating the rapidly increasing demand for international maritime transportation. Now, strengths in logistics and supply chain management have become the strategic advantages for enhancing competitiveness of businesses. Moreover, ‘ports’ are considered as the important nodes in logistics and supply chains, as they are operating as the gateways to international seaborne trade. However, ports all over the world are subject to complex and dynamic market situations while facing the increasing needs and expectations from customers.

In Thailand, the trends due to Globalization and Digitalization also increase the trade volumes of the country. As per statistics, one of the major factor that drive country’s economy are the increasing imports and exports activities of fast growing local businesses. Moreover, Thailand can gain good opportunity from AEC and CLMV countries to increase trade volume as well. As mentioned in the previous chapter, 80% of Thailand’s international trade cargo volumes is carried by sea transportation. There, LCP is operating as the country’s main gateway to the international seaborne trade, which is strategically located about 130 km away from the city of Bangkok towards the Gulf of Thailand. However, when considering the inland transportation of cargo between LCP and Bangkok, there can be seen many alternatives such road, rail, and
inland waterways. Looking at the transportation cost within the country between the city of Bangkok and LCP, the most cost effective mode of cargo transportation is waterway transportation using feeder vessels or barges along the Chao Phraya River. Considering the fast growing nature of the country’s economy and also concerning the factors indicated previously, it is expected that there will be a growth of demand for cargo transportation between LCP and BKP in the future.

By being a state owned-enterprise port operator, under the supervision of PAT, the BKP is mainly involved in a role of consolidation and distribution of cargo between LCP - Bangkok city and other industrial zones in central part of Thailand. Yet, as mentioned previously, although BKP is still holding the leadership position in the market, it is not possible to neglect the influence of key competitors coming from the private sector, as they are competing with their flexible and technologically backed services that present day customers are expecting from ports operators.

Now, due to the competitive situations, BKP realized that it needs to be more proactive and improve its strategies in order to enhance its competitiveness in the market to ensure the sustainable of the organization. By examining the external environments that effect BKP in national level, there are positive signs of national economic growth, technologies and social aspects that will increase the cargo volumes of BKP. There are a lot of good signs from government policies that will also help to increase the competitiveness of logistics, supply chain and transportation industries in Thailand, such as the investment projects in multimodal transportation and new infrastructures developments. But, on the other hand, the intensive concerns on environmental issues and higher number of old laws and regulations can be seen as the main drawbacks. However, internal factor assessment shows that the rigid organizational structures with tall hierarchies can be seen as the major weaknesses of PAT which prevent fast and flexible decision making processes to implement proper marketing activities for BKP’s customers. However, PAT has established a marketing objectives for 5 ports under its supervision and introduced a new organization strategic plan no. 11 (2017-
2021), where one of its main strategies is to segment the ports’ customers by identifying the right customers and positioning the ports in the right markets.

### 6.1.2 Developing STP Strategies for BKP

After assessing of the external and internal factors that affect BKP in marketing aspect, the analysis of customers, competitors and company are conducted. Then, the results of those analysis are used in developing STP strategies.

Considering the results of the customer analysis, it indicates that the BKP’s customers can be categorized based on the type of services such as Shipping lines and Warehouse customers. However, when considering the market size and growth, the analysis results show that there will be high possibility of increasing container vessels and container throughput volumes in the future. In contrast, there is a decreasing trend in warehouse operations.

Therefore, in the target marketing section, this study chooses to focus more on container vessels and containerized cargo carriers. First of all, the majority of vessels call at BKP are container cargo carriers, where this group can be further categorized into feeder vessels and container barges. However, statistics show that feeder vessel calls at BKP have started to decrease continuously due to the fact that feeder shipping lines are getting into alliances and deploy larger vessels, thus need to use LCP instead of BKP, where barges have to be used in between BKP and LCP. So, this is one of the reasons behind high growth of barge volumes at BKP. Further, statistic show that the top 2 ranking of shipping lines that bring containers to BKP are barge service operators. However, when considering the competitiveness in the market, all of the private port operators in Chao Phraya River also provide terminal facilities for barge operators from/to LCP. Thus, considering this fact, it can be expected that there will be more growths in barge operations in the future. Considering this fact, with reference to the results of market and competitor analysis, ‘Barge Operators’ are considered as the potential target customers that BKP must focus on deeply.
In addition, in order to communicate BKP’s image to the target customers and differentiate BKP’s services from other competitors, BKP must setting its positioning by considering into two dimensions. Firstly, it should focus on the higher standard and quality of operations to provide the best coastal terminal service in the market. Secondly, it should create the good image of government coastal terminal that provide services for the benefit of public interest and country.

6.1.3 Developing of seven (7) Ps Marketing Mix Strategies for BKP

After, developing STP strategies, BKP needs to ensure that those strategies can put into actions. Here, seven (7) Ps marketing mix is the tools for create the implementing of marketing strategies for target customer (barge operators) of BKP. However, this study has developed all seven (7) Ps strategies but in this part, considering BKP as a state-owned enterprise port operator, 5 Ps of strategies are needed to be more discuss here;

- **Product Strategies**

The product strategy is the core of doing business. For BKP, in order to provide the right service to barge operators, previously feeder vessels and barges use the same berth but feeder vessel get the priority of berthing. This means barges have to wait for long time. Therefore, BKP decided to develop one of the area in East Quay to become 20G Coastal Terminal for barge operators with 250 meters of quay length which can accommodate 2 barges at the same time. Moreover, BKP invested on 2 new rail mounted gantry cranes with the separate container storage area around 3,250 square meters. More importantly, this service allows BKP to provide the first priority of service, high quality of service and reducing waiting time in port for barges.
• **Promotion Strategies**
The promotion strategies are very important for BKP in two aspects. Firstly, BKP as a state-owned enterprise organization has responsibility of serving public interest. Moreover, BKP is located in the capital city, therefore BKP needs to work closely with communities and need support from them the good promotion strategies such as event marketing, public relation programs, or websites can create good understanding and good image of BKP to communities. Secondly, BKP as a barge terminal operator should create promotion strategies based on the needs of customer and the characteristic of shipping industry. Therefore, the effective promotion tool of port in business aspect should be the tools that easy to change and not expensive such as direct selling, direct mailing, newsletter, or website. In this regard, it is needed to highlight here that when considering all the factors of BKP’s promotion strategies, the first priority that BKP need to improve is the official website that contain both of the informative information about 20G coastal terminal services and the benefits of this service toward the country. Moreover, BKP needs to be curtain that this official website is design in term of user-friendly website for customers.

• **People Strategies**
People strategies become more important in the service business sectors, due to customers’ experiences are depended on the employees who provide the service to customers. However, one of BKP’s strengths is the good skill and expertise of employees for the operation. But on the other hand, when considering the needs and expectations of shipping lines customers shows that the operation efficiency and punctuality still not enough and more importantly the personality of employees such as service mind are still in the lower level than standard. Therefore, in the operation aspect, BKP needs to focus on from the beginning which it the recruiting process to get the right employees that have the good knowledge, high level of skills and service mind, setting then BKP needs to provide the good training programs, setting new challenging KPI, and offer the good carrier path for employees etc. Thus, those factors will make higher level of service for 20G coastal terminal operation. However, in
marketing aspect, employees from marketing department are the group of people who meet the top level management of barge operators which are the decision maker to choose BKP’s for their services. Therefore, marketing employees also must have good knowledge in 20G Coastal terminal project and good understanding about barge operators.

- **Process Strategies**
The process of service is the one that customers will experience directly and can effect the impression, satisfaction and dissatisfaction of the customers. For BKP, there is a project called National Single Window (NSW) which is the e-document systems linking between three parties (LPB, BKP, Customs Department) therefore, this project can make the customers have more convenience because the reduction of document transaction between those two ports. Moreover, the 2-way system of berth checking and booking system real time for barge operators. In addition, BKP should use the technology and innovation to develop the good processes for the target customers. However, if the target customer change, the processes need to be assess and adapt to the new target customer.

- **Physical Evidence Strategies**
As ports industry are service business, customers cannot see the tangible product before using ports services, therefore BKP can take the benefit of its assets, infrastructures, facilities, PAT’s logo, BKP’s logo, certificated of international standards and awards winning in order to show to customer as the physical evidences. Further, the uniform of BKP employees and the presentations of marketing officers also be the important evidence for BKP’s services. Here, for the new customers, the evidence strategies will attract and motivate customer to choose BKP’s services. On the other hand, for existing customers, this strategy gives the confident and trust to use BKP’s services.
6.2 Implications

This study can be used as a guideline for BKP to set its own framework for developing port marketing strategies. However, in order to develop good strategies, accurate and timely data and information are very much important for carrying out analysis. In that case, BKP should improve the existing database systems or invest on other systems to ensure that there are good and enough data to be used for marketing related activities. Further, it is necessary to highlight that ‘marketing strategies’ cannot be developed by the marketing department alone due to the complexity of the data, information, opinions and combination of tasks from all related departments in the organization. Moreover, it is important to take into consideration the concerns of all the stakeholders of BKP in developing marketing strategies.

However, the internal and external factors that affect BKP are dynamic and change all the time, thus marketing strategies need to be monitored, evaluated and improved time to time. In that case, marketing department needs to examine and conduct analyzes on continuous basis in order to revise its customers, competitors and update organizational status to identify new customer segments, target new potential customer(s) and position BKP in right markets at right times.
CHAPTER SEVEN

CONCLUSION

The final chapter concludes the dissertation with three subsections which include a summary of the dissertation, its contributions and the limitations.

7.1 Summary

The wind of globalization and digitalization lead the logistics and supply chain industry into a new era all over the world. ‘Ports’ as an important node in cargo transportation is facing a huge challenge to survive in this intense competitive market. In that sense, it is understood that the role of ports need to be adapted to meet the increasing requirements of customers. Thus, tactical business strategies are needed in order to survive in the competitive market where the good marketing strategies will take businesses into higher levels.

This research focused on developing marketing strategies for ports, as a case study of Bangkok Port (BKP) in Thailand where secondary data and information from previous literatures, statistic reports, government reports, official websites were used as inputs for analysis. In order to develop marketing strategies for BKP, this research conducted customer analysis by focusing on the market size and growth of each main services. Moreover, the competitors’ analysis was carried out by using Five Forces Model while considering the size of market share of container throughput and general cargo in the market. Further, organizational analysis was done using PESTEL Analysis and SWOT Analysis to assess the internal and external influential factors of BKP and to understand the opportunities, threats, strengths, and weaknesses of BKP.

After above analysis, STP strategies were discussed; first, considering the customer analysis where BKP’s customers were divided into 2 groups as shipping lines and warehouse customers. Then, with respect to the competitors and company analysis, the target customers of BKP were identified as barge service companies while BKP was positioned as a high quality reliable service provider. Finally, in order to ensure that STP strategies can be implement in the practical operations, this research developed

7.2 Contributions

This research focused on developing marketing strategies for BKP with the expectation to perform better in present and future competitive markets by identifying right customers and serving them better by optimally utilizing the available resources. There, this research study set a basic framework for stimulating the overall understanding of concepts and processes in developing marketing strategies while providing direction for other related business units to design and collect right data for their marketing analysis for BKP in future.

Further, this will assist BKP in streamlining its existing marketing activities towards the right direction as it was observed that some of its previous campaigns were not having that understanding. In addition, results of this effort will provide guidelines for other ports under the supervision of PAT where they get an already proven framework for developing marketing strategies for their respective ports. However, considering the fact that there were no proper analyses done in developing marketing strategies for BKP, this research study contributes fill in that gap for the betterment of the organization to gain more benefits from its available resources.

7.3 Limitations

The research study mainly carried out with the secondary data obtained from official websites, reports, documents of PAT and other government organizations due to limited time frame and limited resources available to the researcher where it was not possible to collect data in primary data collection manner. Yet, as a marketing study, it is suggested to meet and discuss with the key customers of BKP to get their views and to know what they really expect from BKP. Although, it was not practically possible for the researcher as an individual person; it is suggested to the BKP marketing team to follow a collective approach with formal organizational support for a thorough study in the future.
REFERENCES


AIT. (2018). CLMV regional conference on sustainable development goals (SDGs) implementation; Bangkok, Thailand: Asian Institute of Technology.


BOI. (2016). Thailand tipped to emerge as a key ASEAN logistics hub. Thailand: Board of Investment.


CIM. (2009). Marketing and the 7 Ps A brief summary of marketing and how it work. United Kingdom: The Chartered Institute of Marketing.


ESCAP. (2015). A study for CLMV countries; Economic and Social Communications for Asia and the Pacific.


UNESCAP. (2015). LAEM CHABANG PORT Gateway to South East Asia. Thailand: UNESCAP


