

## Performance of Phuket's Port of Call Management for Cruise Tourism:

### an Assessment of IPA Application

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สำหรับการท่องเที่ยวเรือสำราญ: การประเมินผลโดยการ  
ใช้การวิเคราะห์ความสำคัญและการผลการปฏิบัติงาน

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#### Abstract

A study using mixed research methodology was aimed at assessing the performance of Phuket's port of call management toward the investigation of its importance and performance levels from the cruise passenger perspectives by using questionnaire as a quantitative research tool from 562 cruise passengers who cruised to Phuket Island by all four ship sizes during November-December, 2013. In addition, the qualitative data were also collected from relevant stakeholders, employing semi-structured interview in order to explore profound perspectives. Importance-Performance Analysis (IPA) was applied as a tool for data analysis from the importance and performance levels to highlight what Phuket should prioritize for port of call development.

The data from mean scores of the 22 variables from 4 factors were transferred onto the IPA grid presentation and plotted onto the four quadrants according to the mean scores of both levels. 9 variables loaded in "keep up the good work" quadrant are "tourism attraction", "tourism activity", "service provider", "value for money", "safety & security onshore", "health & sanitation", "cleanliness", "climate & sea condition" and "immigration formality & custom regulation", 5 variables in "concentrate here" quadrant are "emergency plan", "connectivity", "port facility", "port infrastructure" and "political stability", 5 variables in "low priority" quadrant are "tourism amenity" "port management" "national cruise policy", "collaboration of stakeholders" and "social acceptance" and 3 variables in "possible overkill" quadrant are "shore excursion management", "accessibility" and "port characteristic". As results from both methodologies, "emergency plan", "connectivity", "port facility", "port infrastructure" and "political stability" should be urgently prioritized for Phuket's port of call development.

**Keywords:** Performance, Phuket, Port of Call Management, Cruise Tourism, IPA

**Paper type:** Research



## บทคัดย่อ

การศึกษาค้นคว้าครั้งนี้เป็นการวิจัยแบบผสมโดยมีวัตถุประสงค์เพื่อประเมินผลการจัดการท่าเรือแวะพักของจังหวัดภูเก็ตสำหรับการท่องเที่ยวเรือสำราญผ่านการวิเคราะห์จากระดับความสำคัญและประสิทธิภาพการจัดการท่าเรือแวะพักของจังหวัดภูเก็ตในมุมมองของผู้โดยสารเรือสำราญโดยใช้แบบสอบถามเป็นเครื่องมือเชิงปริมาณสอบถามจากผู้โดยสารเรือสำราญจำนวน 562 คนที่เดินทางเข้ามาที่ภูเก็ตทั้งสี่ขนาดในจังหวัดภูเก็ตระหว่างเดือนพฤศจิกายนถึงเดือนธันวาคม พ.ศ. 2556 นอกจากนี้ผู้วิจัยได้เก็บข้อมูลเชิงคุณภาพโดยการสัมภาษณ์แบบกึ่งมีโครงสร้างจากผู้มีส่วนได้ส่วนเสียในการจัดการท่าเรือแวะพักของจังหวัดภูเก็ต และใช้การวิเคราะห์ระดับความสำคัญและผลการปฏิบัติงานเป็นเครื่องมือในการวิเคราะห์ผลที่ได้จากระดับความสำคัญและการผลการปฏิบัติงานของการจัดการท่าเรือแวะพักของจังหวัดภูเก็ตเพื่อนำมาจัดลำดับในการพัฒนาการจัดการท่าเรือแวะพักของจังหวัดภูเก็ต

ข้อมูลจากค่าเฉลี่ยของตัวแปรจำนวน 22 ตัวแปรจาก 4 ปัจจัยหลักในการจัดการท่าเรือผ่านการนำเสนอในไดอะแกรมออกเป็นจุดภาคตามค่าเฉลี่ยของระดับความสำคัญของการจัดการท่าเรือแวะพักและประสิทธิภาพการจัดการท่าเรือแวะพักของจังหวัดภูเก็ต จากการศึกษาพบว่า 9 ตัวแปรถูกจัดอยู่ในกลุ่มตัวแปรที่ระดับผลการปฏิบัติงานดีและระดับความสำคัญมาก ได้แก่ แหล่งท่องเที่ยว กิจกรรมการท่องเที่ยว ผู้ให้บริการ ความคุ้มค่าเงิน ความปลอดภัยบนฝั่ง สุขอนามัย ความสะอาด สภาพอากาศและทะเล พิธีการตรวจคนเข้าเมืองและศุลกากร นอกจากนี้ 5 ตัวแปรถูกจัดอยู่ในกลุ่มตัวแปรที่ระดับผลการปฏิบัติงานต่ำแต่ระดับความสำคัญมาก ได้แก่ แผนรับมือภาวะฉุกเฉิน การเชื่อมต่อระหว่างท่าเรือ สิ่งอำนวยความสะดวกของท่าเรือ โครงสร้างพื้นฐานของท่าเรือ เสถียรภาพทางการเมือง ในขณะที่ 5 ตัวแปรถูกจัดอยู่ในกลุ่มตัวแปรที่ระดับผลการปฏิบัติงานต่ำและระดับความสำคัญต่ำ ได้แก่ สิ่งอำนวยความสะดวกทางการท่องเที่ยว การจัดการท่าเรือ นโยบายการจัดการเรือสำราญของประเทศ การร่วมมือของผู้มีส่วนได้ส่วนเสีย การยอมรับของสังคม และ 3 ตัวแปรถูกจัดอยู่ในกลุ่มระดับผลการปฏิบัติงานสูงแต่ระดับความสำคัญต่ำ ได้แก่ การจัดการรายการนำเที่ยวบนฝั่ง การเข้าถึงแหล่งท่องเที่ยว และ ลักษณะเฉพาะของท่าเรือ ผลจากการศึกษาพบว่าในการจัดการท่าเรือแวะพักของจังหวัดภูเก็ตจำเป็นต้องพัฒนาอย่างเร่งด่วนได้แก่ แผนรับมือภาวะฉุกเฉิน การเชื่อมโยงระหว่างท่าเรือ โครงสร้างพื้นฐานของท่าเรือ สิ่งอำนวยความสะดวกของท่าเรือและเสถียรภาพทางการเมือง

**คำสำคัญ:** ผลการปฏิบัติงาน ภูเก็ต การจัดการท่าเรือแวะพัก การท่องเที่ยวเรือสำราญ การวิเคราะห์ความสำคัญและผลการปฏิบัติงาน

## 1. Introduction

Cruise tourism has developed and stepped into the commercial track almost two centuries ago (Basiron, 1997) but it was modernized in 1960 (Liu, 2006; Szarycz, 2008) and widely known as an emerging product, targeting American and European passengers in 1990 (Liu, 2006; Failte Ireland National Tourism Development Authority, 2012). Cruise tourism is claimed to be one of the most significant growing tourism businesses (UNWTO, 2011; Wu, 2005). In 1980, 1.5 million cruise passengers were recorded (Liu, 2006), which skyrocketed to 20 million in 2012 (Hoogkamer, 2013). Most importantly, it is predicted by UNWTO (2012) that its number will increase further to 25 million passengers in 2015 as evidenced by a dramatic rise in ship size, number of ship, number of passenger, port development, and growth rate of cruise tourism in all regions (UNWTO, 2011; Wu, 2005; Hull & Losekoot, 2012). Supporting reasons of its growth are its premium service (Bhattacharyay, 2009), luxury, exclusivity, value, convenience, comfort, safety, variety (Gibson, 2006) and apparently the port (Lekakou et al, 2009; Pavlic, 2013). Noticeably, this is a fruitful future that will benefit not only the

cruise lines but also all stakeholders relevant to cruise tourism as well as the ports.

Cruise tourism is a unique mode of transport which combines transportation and destination (UNWTO, 2012; Kizielewicz, 2012). It involves multi-functional and multidisciplinary components such as entertainment onboard, leisure facility, infrastructure and onshore activity. Many studies (Gibson, 2006; Dowling, 2006; European Commission, 2009; Ogawa et al., 2009; Willis, 2012; Kizielewicz, 2012; UNWTO, 2012) defined cruise tourism as a travel segment that provides pleasure and safety as priorities as well as onboard facilities and onshore activities. It carries passengers from home port (starting point) to visit any scheduled ports of call.

Port for cruise tourism is classified into three categories which are; 1) home port, 2) port of call and 3) hybrid port. Home port is the port where cruise passengers embark or disembark at the beginning or the end of the cruise (McCalla, 1997; ECLAC, 2005; Demetriou, 2011; Pavlic, 2013; Rodrigue & Notteboom, 2013) while port of call is a part of the cruise itinerary passengers are at port for only the duration of their port call (McCalla, 1997; Lekakou et al., 2009; European Commission, 2009; Wentworth, 2010;



Demetriou, 2011; Pavlic, 2013) neither begin nor terminate their journey (ECLAC, 2005). It acts as an intermediate in-transit call and no cruise passenger discharges or supplies (TEC inc, 2007). Meanwhile, hybrid port is a combination of home port and port of call (McCalla, 1997; Lekakou et al., 2009; Demetriou, 2011).

The study is determined in accordance with rapid growth in global cruise tourism especially in Asia (ASEAN, 2002). Over the past few decades, the cruise ships have been deployed in Asian ports increasingly (CLIA, 2014), including Phuket port. The size of the cruise ships tends to be bigger than the ports had ever been required to accommodate before (Bayley, 2009, & UNWTO, 2010). Moreover, the target market has shifted from aged cruise passengers to a multi-generational mix that has diverse needs, expectations and characteristics (Port-Net, 2007) when travelling by cruise to visit port of call. Ports have turned into one of the crucial factors affecting the purchase decisions of potential cruise passengers, so cruise lines concern with port management (Lekakou et al., 2009) by using various criteria for port selection to ensure that ports are able to satisfy cruise passengers during their visits (Magala & Sammons, 2008; & UNWTO, 2010).

Phuket port has greatly served cruise tourism as a port of call for decades (Monpanthong, 2003), due to its reputation and attractiveness, leading cruise tourism to grow continuously in Phuket. It has become the most visited port of call in Thailand and one of the highlighted ports in the ASEAN region (Monpanthong & Choibamroong, 2013). Under the growth of the global cruise tourism with aggressive competition among ports, several ports in the region have rapidly developed to attract cruise lines to add them to their itineraries. Conversely, Phuket port has not yet taken any actions regarding port development, despite the significant growth of cruise tourism in Phuket.

Factors affecting port of call management were extracted from literature reviews and identified to four factors for this study which are; 1) tourism products & service, 2) safety performance, 3) port conditions and 4) political condition, tourism policy and regulatory. Tourism products & service factor consists of six variables (tourism attraction, tourism activity, tourism amenity, service provider, shore excursion management, and value for money) while safety performance factor is composed of four variables (safety & security on shore, health & sanitation, cleanliness, and

emergency plan). In addition, port conditions factor comprises of seven variables (connectivity, accessibility, port facility, port characteristic, climate & sea conditions, port management, and port infrastructure) and political condition. Lastly, tourism policy and regulatory factor contains five variables (immigration formality & custom regulation, political stability, national cruise policy, collaboration of stakeholders, and social acceptance). These four factors with 22 variables were used to testify the important levels and performance levels of port of call management.

IPA was selected as a tool to compare the importance levels of port of call management and performance levels of Phuket's port of call management as viewed by cruise passengers. It is an effective technique in analyzing the factors or variables in two dimensions which are the importance and performance levels to the customer (Scott, 1993; Chu & Choi, 2000; Chen et al., 2010; Lopes, 2012). It helps to evaluate, identify, improve and guide enterprises to be more competitive as stated by Martilla & James (1997). A comparison of importance and performance scores is used to determine what variables require improvement, maintenance or emphasis. The results were applied to a scatter plot graph, with a vertical axis representing importance and a horizontal axis standing for performance. Each variable has a mean for importance and performance levels. Each point is placed in one of the quadrants in the matrix. The quadrants represent "keep up the good work", "concentrate here", "low priority" and "possible overkill". In conclusion, IPA was used for this study by analyzing two dimensions which are importance and performance in order to assess Phuket's port of call management.

## 2. Objectives

2.1 To evaluate the important levels of port of call management and performance of Phuket's port of call management

## 3. Research Methodology

Mixed research methodologies were employed for the study. The questionnaire with 6-likert scales was used as a quantitative data collection tool, investigating how cruise passengers' perceived factors, in terms of importance of port of call management and performance of Phuket's port of call management for its assessment. The sample size was 562,



using the quota sampling technique to divide the cruise passengers at all three ports of Phuket Island used for cruise tourism (Port of Phuket, Patong Jetty and Kalim Jetty) from four ship sizes (Gibson, 2006) which are mega (90,000-150,000 Gross Registered Tonnage or GRT), large (60,000-90,000 GRT), midsize (30,000-60,000 GRT), and small (3,000-30,000 GRT) in order to avoid the bias. Then, a purposive sampling technique was selected to identify the populations who had experienced Phuket's port from November–December 2013. After that, a convenient sampling technique was then employed to collect data from an appropriate number of subjects. In summary, total of 562 respondents were collected from 100 respondents of mega cruise ship, 207 of large cruise ship, 155 of midsize cruise ship and 100 of small cruise ship respectively as the samples of each cruise ship were calculated from the proportion of total cruise passenger arrivals from each ship size. During the process of data collection, the quantitative data were collected at the gangways of three ports from the cruise passengers who had already experienced Phuket port before embarking the cruise ships. The questionnaires were analyzed with regards to validity and reliability. The results of content validity were measured by the IOC index, showing 0.80-1.00. The reliability was tested with 30 respondents, resulting in an Alpha coefficient of 0.965. The data were finally analyzed by paired sample correlation tests and IPA was used as a tool to assess the performance of Phuket's port of call management.

In order to collect more profound data and minimize bias in the study, qualitative research methodology was also applied by using semi-structured interviews from three population groups, in order to gain rounded data from grounded sources which are those from 30 public sectors, 30 private sectors and 30 local community. The sample techniques for qualitative research were purposive sample technique to identify those who involve Phuket's port of call management and convenient sample technique was then employed for data collection. However, the semi-structured interviews were gathered from only 25 land based stakeholders (LB), 14 cruise staff (CS) and 7 cruise passengers (CP) as the data were repeated at that particular numbers. Data from semi-structured interview were analyzed by content analysis.

#### 4. Findings and Discussion

Only the performance levels are insufficient data for developing port of call management as they do not show the importance levels of the factors affecting port of call management as viewed by the cruise passengers. Therefore, the importance levels are crucial in guiding the researcher to identify how Phuket's port of call should be improved by exploring both levels for data analysis by IPA to highlight what Phuket should prioritize for port of call development. Therefore, to assess the performance of Phuket's port of call management, the data identified from the importance levels of port of call management and the performance levels of Phuket's port of call management should be compared. Simply, the cruise passengers' perception toward importance levels can be easily seen as an expectation of port of call management while the performance levels refers to Phuket's port of call management that cruise passengers experienced during their visit at port.

The data from mean scores of the 22 variables under four factors that affect port of call management are shown in Table 1. They were finally transferred onto the IPA grid presentation and plotted onto the four quadrants according to the mean scores of both levels. To sum up, 9 variables loaded in "keep up the good work" quadrant, 5 variables in "concentrate here" quadrant, 5 variables in "low priority" quadrant and 3 variables in "possible overkill" quadrant (Figure 1.).

##### 4.1 Keep Up the Good Work Quadrant

From a total of 22 variables under four factors, nine variables (40.90%) were identified in the "keep up the good work" quadrant. They were "tourism attraction", "tourism activity", "service provider", "value for money", "safety & security onshore", "health & sanitation", "cleanliness", "climate & sea condition" and "immigration formality & custom regulation". All variables in this quadrant were rated with above average importance and performance levels. Noticeably, 4 out of 9 variables are under the "tourism products & service" factor and 3 out of 9 variables are under "safety performance" while both "port condition" and "political conditions, tourism policies and regulations" each have only one variable that is doing well. In conclusion, these are the strengths of Phuket's port of call.

Meanwhile, the reviewed literature is consistent with IPA results, in that the strength of Phuket Island are the

natural tourism attractions, diverse tourism activities, value for money, safe destination, warm hospitality, climate and weather pattern (Institute for Management Education for Thailand Foundation, 2002; Titanont & Chantrodoan, 2004; WTO, 2005; Handmer & Choong, 2006; UNWTO, 2012; Promsaka Na Sakolnakorn et al., 2013). As an international tourism destination, Phuket has gained a reputation from tourists worldwide including the cruise tourists. In cruise tourism, all aforementioned variables in this quadrant are main criteria for port selection and they are the main variables in driving the destination's competitiveness. The following are some examples from semi-structure interviews that confirmed these variables as strengths of Phuket port of call;

*"Attractive and diverse tourist attractions and activities (LB1,3,9,10,13,17,19,21,22,24 & CS 2,3,4,5,6,8,10,14 & CP 1,2,3,4,5)"*

*"Destination with high value for money (LB3,16,17 & CS1,2,4,8,12,13 & CP3)"*

*"Great hospitality of service staff (LB4,11,12,14,15,16,23 & CS3,5,6,9,10,11,13,14 & CP 1,2,3,5,6)"*

*"Safe destination (LB2,6,8,13,14,18,20,21,23,25 & CS4,6,7,8,9,10,12,14 & CP5,6)"*

*"Convenient immigration formality (LB5,8,19,21,23,25 & CS3,4,7,10,13,14)"*

*"Reputation of Phuket Port (LB2,3,13,14,17,20 & CS4,11,12,13 & CP3)"*

#### 4.2 Concentrate Here Quadrant

Five out of 22 variables (22.72%) were identified in this quadrant, including "emergency plan", "connectivity", "port facility", "port infrastructure" and "political stability" which were rated above the average importance but below the average performance. Remarkably, these variables mainly concern safety both directly and indirectly. Today's tourists focus on safety as their first priority when selecting a destination for travelling. From the result of the importance ranking, safety and security is the top consideration of port of call management which is accordance with many studies (ASEAN, 2002; Bayley, 2009; Busby & O'neill, 2013). As a role of port of call, port facility and port infrastructure are fundamental resource requirements for the cruise tourism (Tourism Queensland, 2006; TEC inc, 2007) while the port is a gateway to the destination (Tan, 2009). In reality, these

two main variables were rated the lowest in terms of performance. Seriously, the trend toward larger cruise ships accords with Wood (2002), Wu (2005) Port-Net (2007) and UNWTO (2011) which strongly require the port to provide port facilities and infrastructure with highest safety and convenience to attract them to call in higher numbers. Undoubtedly, many ports in Asia have been developed (Tan, 2009).

Furthermore, the emergency plan is a critical issue in cruise tourism, as the industry itself has experienced certain critical issues (e.g., ship accidents, ship fires, natural disasters, outbreaks and diseases). Thus, the cruise lines primarily require the port to manage promptly when crisis occur especially for large cruise ships in particular (Trelawny, 2005; Gibson, 2006). Meanwhile, there is a lack of evidence showing a good emergency plan to ensure safety if incidents happen in Phuket. Moreover, the political instability in Thailand has been an issue and inevitably affected the image of the destination. Phuket as a port of call should, therefore, improve these weaknesses urgently. Concordantly, the results from IPA correlate with the semi-structured interviews showing that the political issue, port facility and infrastructure are obstacles to Phuket's port of call. Port facility and infrastructure are required urgent improvement, especially for large cruise ships that will be coming more often to Phuket. These are the examples from semi-structured interviews;

*"Poor port infrastructure and facility (LB2,4,5,6,13,14,15,17,18,19,21,22,23,24,25 & CS 1,2,4,7,9,10,13 & CP2,3,4,5)"*

*"Political instability (LB2 & CS1,8)"*

*"No emergency plan at Phuket port (LB12,17 & CS8 & CP3)"*

#### 4.3 Low Priority Quadrant

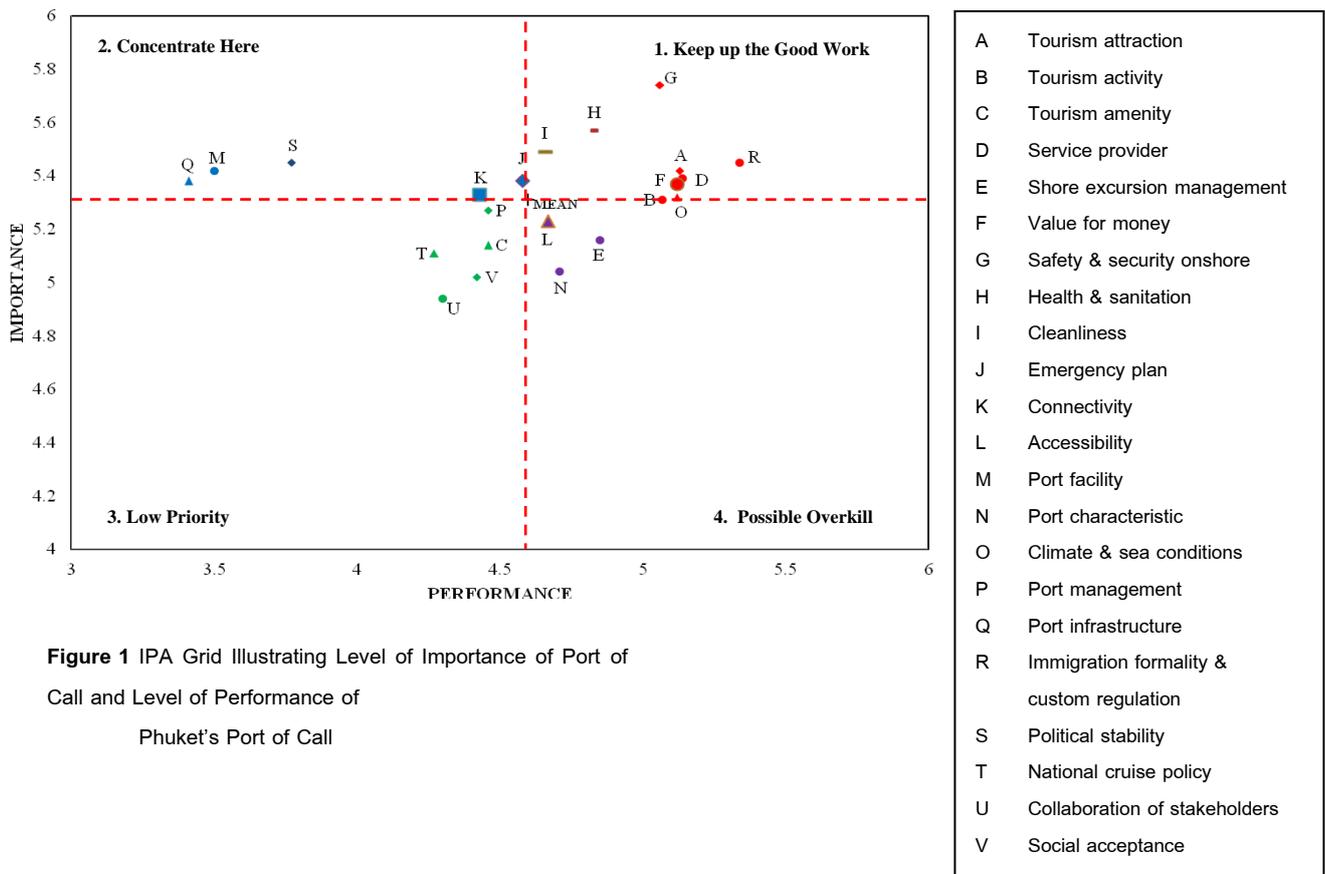
In the low priority quadrant, there are five out of 22 variables (22.72%) which are "tourism amenity", "port management", "national cruise policy", "collaboration of stakeholders" and "social acceptance". They were rated below the average for both importance and performance.



**Table 1** The Gap between Importance and Performance Levels of Variables as Results of IPA

Code	Variable	Importance Levels		Performance Levels		Dif (P-I)	Result	Quadrants
		Mean	Results	Mean	Results			
A	Tourism attraction	5.42	Extremely important	5.13	Efficient	-0.29	Keep up the good work	1
B	Tourism activity	5.31	Extremely important	5.07	Efficient	-0.24	Keep up the good work	1
C	Tourism amenity	5.14	Important	4.46	Efficient	-0.68	Low priority	3
D	Service provider	5.39	Extremely important	5.14	Efficient	-0.25	Keep up the good work	1
E	Shore excursion management	5.16	Important	4.85	Efficient	-0.31	Possible overkill	4
F	Value for money	5.37	Extremely important	5.12	Efficient	-0.25	Keep up the good work	1
G	Safety & security onshore	5.74	Extremely important	5.06	Efficient	-0.68	Keep up the good work	1
H	Health & sanitation	5.57	Extremely important	4.82	Efficient	-0.75	Keep up the good work	1
I	Cleanliness	5.49	Extremely important	4.66	Efficient	-0.83	Keep up the good work	1
J	Emergency plan	5.38	Extremely important	4.58	Efficient	-0.80	Concentrate here	2
K	Connectivity	5.33	Extremely important	4.43	Efficient	-0.90	Concentrate here	2
L	Accessibility	5.23	Extremely important	4.67	Efficient	-0.56	Possible overkill	4
M	Port facility	5.42	Extremely important	3.50	Somewhat inefficient	-1.92	Concentrate here	2
N	Port characteristic	5.04	Important	4.71	Efficient	-0.33	Possible overkill	4
O	Climate & sea conditions	5.32	Extremely important	5.12	Efficient	-0.20	Keep up the good work	1
P	Port management	5.27	Extremely important	4.46	Efficient	-0.81	Low priority	3
Q	Port infrastructure	5.38	Extremely important	3.41	Somewhat inefficient	-1.97	Concentrate here	2
R	Immigration formality & custom regulation	5.45	Extremely important	5.34	Extremely efficient	-0.11	Keep up the good work	1
S	Political stability	5.45	Extremely important	3.77	Somewhat efficient	-1.68	Concentrate here	2
T	National cruise policy	5.11	Important	4.27	Somewhat efficient	-0.84	Low priority	3
U	Collaboration of stakeholders	4.94	Important	4.30	Efficient	-0.64	Low priority	3
V	Social acceptance	5.02	Important	4.42	Efficient	-0.60	Low priority	3

**Note:** Variable A-F is under Tourism Products & Service Factor, variable G-J is under Safety Performance Factor, variable K-Q is under Port Conditions Factor and variable R-V is under Political Condition, Tourism Policy and Regulatory



**Figure 1** IPA Grid Illustrating Level of Importance of Port of Call and Level of Performance of Phuket's Port of Call

Simply, these five variables are less important than other variables in the view of cruise passengers and in the meantime, they are considered less efficient when compared with other variables. The implication is to not allocate resources here. As these variables affect cruise passengers less than other variables, the levels of importance are, therefore, rated lower. However, the mean scores of importance are not very low (Table 1) and all of them are identified as key success factors of port of call management from some studies (Tonzon & Heng, 2005; Magala & Sammons, 2008) as well as from interviews. With this regard, Phuket should not reduce the efforts to improve these variables. These are the examples indicating variables in this quadrant from semi-structure interviews consistently with IPA.

*"Poor tourism amenity (LB17,18,19,23 & CS2,11 & CP2,4,6)"*

*"Low capacity of port management (LB1,8,9,13,18,19,21,22,24,25 & CS11,12,14 & CP7)"*

*"Lack of cruise tourism policy (LB1,7,9,11,12,13,15,17,18,21,23 & CS1,4,13,14)"*

*"Lack of social participation (LB7,14,15,23,24 & CS1)"*

*"Lack of collaboration of stakeholders (LB7,18,24 & CS1)"*

In fact, no cruise tourism policy has been initiated as per the findings from interviews. Thus, it should direct a master plan for how cruise tourism in Phuket should be driven. Moreover, port management should be intensively focused in accordance with the interviews from all groups of population. Such interviews highlight a low capability in port of call operations, such as the inefficient tendering operations, tour dispatch on the beach, a long walking distance to the vehicle, and poor port amenities. To develop cruise tourism successfully, the community should be accepting and the stakeholders in all sectors should collaborate with full integration.

#### 4.4 Possible Overkill Quadrant

Three out of 22 variables (13.63%) identified in the possible overkill quadrant are “shore excursion management”, “accessibility” and “port characteristic”. The indication of this quadrant is that the variables rated are lower than average importance but they are more efficient than average. The implication is that the performance of these variables is efficient while the importance levels are not regarded as very high. Even if they are not urgently required to improve, they should be developed as extra values to satisfy cruise passengers.

From semi-structure interviews, it reflected that traffic congestion is the biggest problem related to accessibility in Phuket viewed consistently by all groups of interviewees. Even the overview of accessibility to the main attraction is good but this is hindered by traffic conditions, especially during the high season at main attractions and the city area. Considering shore excursion management, the interviewees from land based stakeholders and the cruise staff showed the limitation of shore excursion management such as limited space for tour assembly, the long walking distance, and the traffic congestion at the site; however, the performances of the local tour operators and the tour guides are success factors in managing the shore excursion effectively despite the aforementioned obstacles.

In order to minimize traffic congestion, a public transport system must be initiated in Phuket in parallel with superstructure. The public transportation system should be a national level policy since it involves complex elements as well as a large budget.

*“Effective shore excursion (LB15,22 & CS7,8,10,14 & CP5)”*

*“Traffic congestion (LB4,9,11,12,15,18,20,22 & CS2,3,5,6,7,9,10,11,12,14 & CP1,4,5,7)”*

*“Exotic port and good location (LB2,9,21,23 & CS11)”*

In conclusion, the results of this study will guide how to improve Phuket's port of call management to achieve competitiveness and attractiveness in the cruise tourism industry.

## 5. Recommendation

No study relevant to cruise tourism in Thailand has been carried out before. Apparently, the study accomplished can hold significance and contribute to the cruise industry in

Phuket, Thailand. In addition, the findings would encourage a higher degree of enthusiasm from all stakeholders relevant to cruise tourism in Phuket, to formulate and implement large-scale integration, in order to drive cruise tourism.

Since cruise tourism has grown significantly, many ports have developed in order to extend their capacity for bigger cruise ships and for a higher number of cruise ships and cruise passengers. As port development relies on a huge budget, it can be achieved mainly by the public sector. From the results of using IPA to identify what Phuket should do, it was found that “port infrastructure”, “port facility”, “emergency plan”, “connectivity” and political stability were in the “concentrate here” quadrant while the results from interviews showed consistency with the quantitative results, that port is the weakest point of the port of call management in Phuket. Thus, port infrastructure and port facility are urgent priorities for port of call development. However, the port development encounters several obstacles such as a high budget, long term construction, environmental impact and effective management; this issue should be well audited. To sum up, the port of Phuket strongly requires the extension of its capacity. A plan for port extension, port infrastructure and port facility improvement should be established, starting with an action plan, which identifies costs and benefits. It is also desirable to attain maximum usage of all types of cruise ships to visit the port year round. Most importantly, the project for port capacity extension should not affect the environment at the port area. The costs and benefits of expenditure need to be analyzed, particularly for Phuket port where most of the cruise ships visit the port seasonally except Star Cruises. The research should cover potential social, economic, and environmental costs as well as identifying strategies to mitigate any adverse effects. All plans for expansion should be accompanied by innovative social and environmental development initiatives that can minimize the potential negative impacts from port development.

In addition, the cruise passengers emphasize all variables relevant to safety significantly higher than others. Therefore, safety performance should be the highest priority no matter what the level of performance. As cruise tourism is unique and differentiated from other types of travelling, safety & security on shore should be concerned priority especially emergency plan in order to prevent critical risk in the views of both cruise lines and cruise passengers. To guarantee a



safe port of call is not only an essential factor in motivating the cruise lines to choose this port, but it is also a key success factor of cruise tourism management.

Meanwhile, political stability is a variable worth mentioning, as its performance level is ranked lowly as a weakness for Phuket's port of call. Since the political instability in Bangkok impacts Phuket, even when the situation in Phuket is normal, the image of the port should be enhanced. News about the political situation should be updated and delivered to the cruise lines and major target groups. Moreover, the safety at port should be ensured by providing the highest safety level.

The researcher would also like to recommend the following issues for further studies:

1. The scope of this study is only port of call. For further study, the study of homeport should be examined in Phuket in order to develop Phuket as a homeport.
2. This study focuses mainly on factors that affect the performance of port of call management. However, study can be extended to examine the process or the linkages between each factor or the whole supply chain of cruise tourism.
3. This study is a holistic view of port of call management. Therefore, the results of each factor are not detailed deeply. Future research can then focus on each factor in particular.
4. The same concept of this study can be applied to assess other cruise ports in Thailand

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